

# THE ILLUSTRATED LONDON NEWS

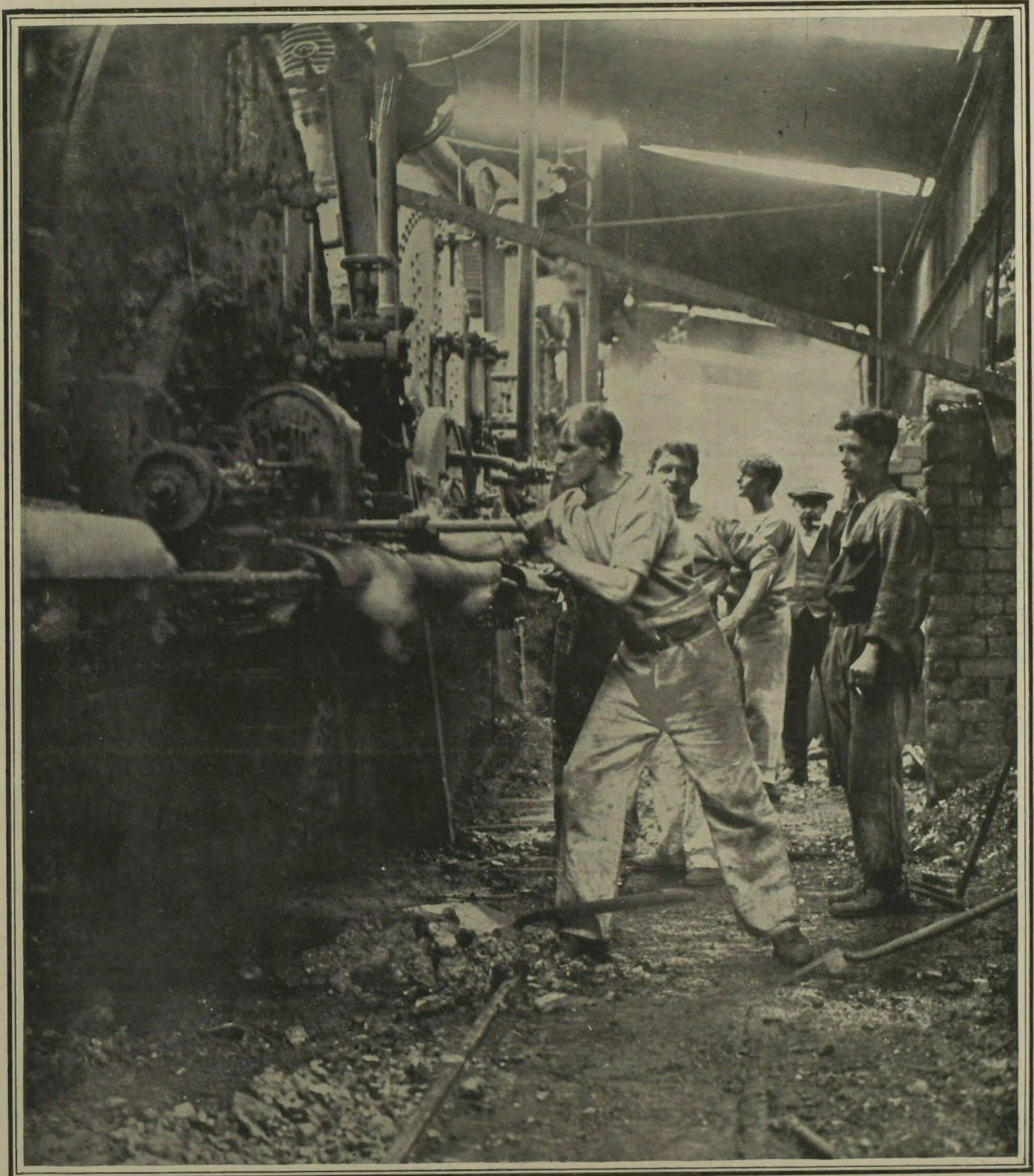
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SATURDAY, AUGUST 2, 1919.

ONE SHILLING.

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THE NAVY FIGHTING THE FLOODS IN YORKSHIRE COAL-MINES: NAVAL STOKERS HARD AT WORK FEEDING THE BOILER FIRES.

During the coal crisis a number of mines were threatened with disaster by flooding, and the mine officials could not cope with the situation. The authorities thereupon sent a body of Bluejackets, of whom some 350 were distributed among various pits. They set to work vigorously to keep the boiler furnaces stoked and to work the pumps, and the services they rendered were invaluable. At one colliery, where three pits were flooded,

there was very little coal to keep the fires burning. Some of the sailors, consequently, were told off to work at a pit over a mile away, to get coal, while others constructed a road so that it could be brought over in trucks. So the pumping machinery was kept going, and the flood was checked. In this case the men worked for forty-eight hours practically without respite, and, it may be added, without a word of complaint.

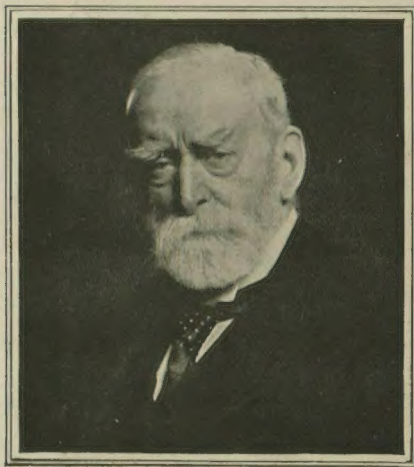
PHOTOGRAPH BY ILLUSTRATIONS BUREAU.





By G. K. CHESTERTON.

THE League of Arts for National and Civic Ceremonies has published a very attractive and valuable book called "Rejoice Greatly." The title, of course, has a sort of double meaning which amounts to a sort of dignified pun. It implies that we should not only rejoice greatly, but that we should be great when we rejoice. It is admirably illustrated, especially with the clear shapes and bright colours of heraldry; and a sort of rich thread of heraldry runs even through its



A FAMOUS PAINTER WHO DIED LAST WEEK:  
SIR EDWARD POYNTER, BT., G.C.V.O.

Sir Edward John Poynter, Bt. G.C.V.O., President of the Royal Academy from 1896 until 1918, died last week. Born in 1836, he was the son of Mr. Ambrose Poynter, architect. He studied art in English schools, and then in Paris under Gleyre, and became an A.R.A. in 1869 and an R.A. in 1876. Some of his famous Academy pictures are: "Israel in Egypt"; "Perseus and Andromeda"; "The Nymphs' Bathing-Place"; and "At Low Tide"; and he painted portraits of King Edward VII., the Duke and Duchess of Northumberland, and many other distinguished people. Sir Edward received his baronetcy in 1902. He is succeeded by his son, Ambrose Macdonald Poynter, who married, in 1907, Miss Cherry Margaret Burnett, only child of Major J. J. Burnett. [Photos ap: by Arbuthnot.]

thoughts and words. It follows the mediæval science not only in its luxuriance, but in its logic. It seeks to correct the modern confusion of thought which has so much clouded this and many other arts of life. It is quite true, for instance, that the recent peace celebrations, of which this book is a reminder and a relic, were full of scrappy and meaningless manifestations which might almost be called accidents. The householder who stuck out of his window at random the flag of Guatemala or Korea was not expressing an eccentric private enthusiasm for those remote realms; nor was he taking part in a centralised scheme of decoration ordered by his own realm. He was neither individual nor social; he fell between two stools—or, one might say, hung between two flag-staffs. The writer of the article on heraldry in this compilation deals with the matter with considerable force and humour. "Never use any colour, flag, badge, emblem or shield without some good reason for it. Do not show flags or shields with devices which do not belong to the kingdom, the Empire, the municipality, or the guilds, the Allied Powers, etc. Do not fly the Dutch Jack, the signal for a pilot, the quarantine flag, or the German mercantile ensign, nor display shields of nonsense heraldry."

The ordinary and immediate answer to this in England will be a fallacy with which we are all familiar. It will be something involving the exceedingly weak-minded word "practical." It

will be suggested that it does us no harm to do these unreasonable things, because they are not immediately followed by their most unreasonable consequences. The householder has no reason to fear that, if he displays a Dutch flag, his house will be stormed by the mob to ensure the arrest of the Kaiser. However much he signals for a pilot, he thinks it unlikely that any pilot in the crowd will precipitate himself with professional ardour in the direction of his balcony. He can hang out the quarantine flag without finding himself suddenly cut off from all physical contact with his friends—and even a German flag, that is not recognised as such, without a similar loss of spiritual contact with them. In short, there will be a general impression that it does not matter, and that it is not worth troubling about. To this practical fallacy there is a very obvious reply. The most practical thing of all, in that sense, is not to have any decorations at all. If it is too much trouble to symbolise anything, it is too much trouble to have symbols. There cannot possibly be any sense in taking the trouble to have symbols that do not symbolise. If names are not worth troubling about, flags are not worth troubling about; and it is the most unbusinesslike thing in the world to spend money on things you do not want. It is the most impractical thing in the world to do something which does not attain its own object. And this is exactly what most modern Englishmen really contrive to do, when they pride themselves on being practical.

There is, indeed, another national element involved which is more subtle, and worthy of more sympathetic study. It is true, in any case, that English patriotism has a comparative carelessness that makes it look like cosmopolitanism. This is part of an English element which can be seen in scores of little things—even in food or cookery. We are always giving foreign names to very native things. If there is a thing that reeks of the glorious tradition of the old English taverns, it is toasted cheese. But for some wild reason we call it Welsh rarebit. I believe that what we call Irish stew might more properly be called English stew, and that it is not particularly familiar in Ireland. There is, I think, another sort of savoury called a Scotch Woodcock, of which I know nothing except that it is presumably not a woodcock, and almost certainly not Scotch. But I only mention these cases from the cookery book to illustrate something that could be found in many other books, and many other things besides books. The English, for all their patriotism, would be the better for a little more nationalism.

To encourage this may well be part of the work of the League of Arts, as it is certainly part of the work of its late publication. To reassert the real English national sentiment a man must be logical—as logical as a

mediæval herald. There is no alternative to logic except laziness. If we wish to save a thing in danger, we must know what we wish to save; above all, if we wish to revive a thing in decay, we must most certainly know what we wish to revive. All the truly great work of the Great War can be summed up in one word—resurrection. It is a less mechanical but a more correct expression than reconstruction. You cannot either construct or reconstruct a living thing, or make a man entirely out of artificial limbs. What is necessary to the nations is the resurrection of the life, which alone makes possible the resurrection of the body. What has escaped destruction and returned is the life of Poland, the life of France, the life of Serbia. And I would add, as something not altogether valueless, the life of England. And when I say England I mean England, as distinct from Scotland or Ireland, or even Wales. In nothing do the compilers of "Rejoice Greatly" more clearly show their artistic commonsense than when they separate and simplify the four flags of the four peoples of Britain. We can see how clear and conspicuous a thing is the cross of St. George, as it could be seen beyond bow-shot at Flodden or at Cressy. We can see how beautiful is what the Scots called the Blue Blanket, the silver saltire of St. Andrew. These things were done when heraldry was a high decorative art; and compared with them, in its decorative aspect, the Union Jack is a rather vulgar quilt. I draw no political deduction; but the thing corresponds to a very real moral distinction. The wanderings of Robin Hood have a national note quite distinct from the wanderings of Bruce, not to mention the wanderings of Oisín. That purely English sort of England had produced not only Robin Hood, but Chaucer; not only Chaucer, but Shakespeare—before it was



RAISED TO THE RANK OF FIELD-MARSHAL: GENERAL SIR HENRY HUGHES WILSON, K.C.B., D.S.O.

Sir Henry Wilson was born in 1864, and is the son of Mr. James Wilson, of Currygrane, Edgeworthstown, Ireland. He was educated at Marlborough, and joined the Royal Irish Regiment in 1884, and, in the same year, transferred to the Rifle Brigade. He first saw active service on the Burma campaign, and fought in the South African War. He has held many important Staff appointments, including the posts of Assistant-Director of Staff Duties at the War Office and Commandant of the Staff College. When the war broke out he was the Director of Military Operations at Army Headquarters, and in 1918 he became Chief of the Imperial General Staff, and a member of the War Cabinet. In 1891 he married Miss Cecil May Wray, daughter of the late Mr. Cecil Gore Wray, of Ardnamore, Co. Donegal.

Photograph by G.P.U.

entangled with any other nations at all. It may yet be one of the old nations which emerge as new nations in the new world.



# GENERAL IRONSIDE'S EX-BOLSHEVISTS REVOLT: PHOTOGRAPHS.



MEN WHO MUTINIED: EX-BOLSHEVIST PRISONERS (BACKGROUND) ENROLLED BY GEN. IRONSIDE—A BLESSING OF COLOURS.



ANOTHER MOMENT OF THE SAME CEREMONY: SALUTING THE COLOURS OF THE NEW BATTALION—(GEN. IRONSIDE LEFT).



THE TYPE OF MEN WHO WERE RECRUITED BY GENERAL IRONSIDE: BOLSHEVIST PRISONERS CLEARING SNOW.



THE G.O.C., ARCHANGEL, AND OTHERS: (L. TO R.) GEN. IRONSIDE, CAPT. M'GUBBINS, BRIG-GEN. WALSH, AND COL. THOM.



THE ARRIVAL OF THE BRITISH RELIEF FORCE LAST MAY: AN INSPECTION BY GENERAL IRONSIDE (WEARING STAR).



WITH ARCH ERECTED PARTLY IN HONOUR OF THE NEW EX-BOLSHEVIST REGIMENT: A REVIEW OF THE BRITISH RELIEFS.

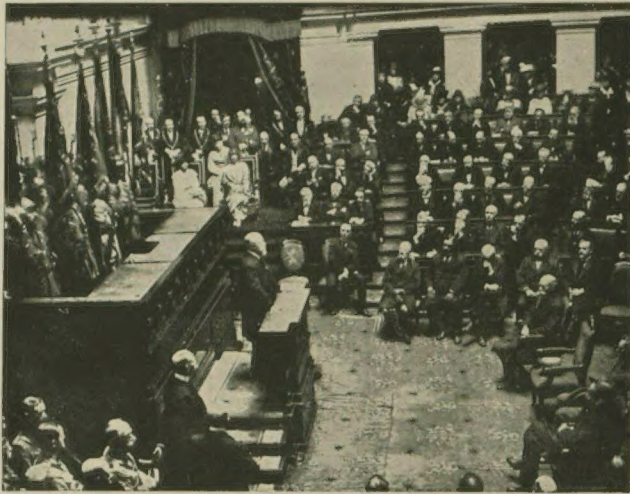
On July 23 the War Office stated: "General Ironside, at Archangel, reports that a mutiny has taken place among the Russian troops. In the Onega area the mutineers have handed over the front and the town to the enemy. The mutiny was due to Bolshevik propaganda, and was brought to a head by the realisation that we were withdrawing from North Russia and that the gradual evacuation had already begun. A considerable number of the Russian troops apparently decided that their only hope was to go over to the

Bolsheviks. General Ironside now has the situation in hand." The mutineers were ex-Bolshevik prisoners whom General Ironside had formed into a regiment to serve against the Bolsheviks, and were believed to be loyal. They murdered five of their British officers. Our photographs were taken at the time of the formation of this regiment. The Secretary for War (Mr. Churchill) spoke in Parliament on the 28th regarding the whole military situation in Northern Russia.



# BELGIUM REJOICING: M. POINCARÉ AND MARSHAL FOCH IN BRUSSELS.

PHOTOGRAPHS BY PHOTOPRESS; ONE BY TOPICAL.



THE FRENCH PRESIDENT ADDRESSING THE BELGIAN CHAMBER OF DEPUTIES: M. POINCARÉ SPEAKING FROM THE TRIBUNE.



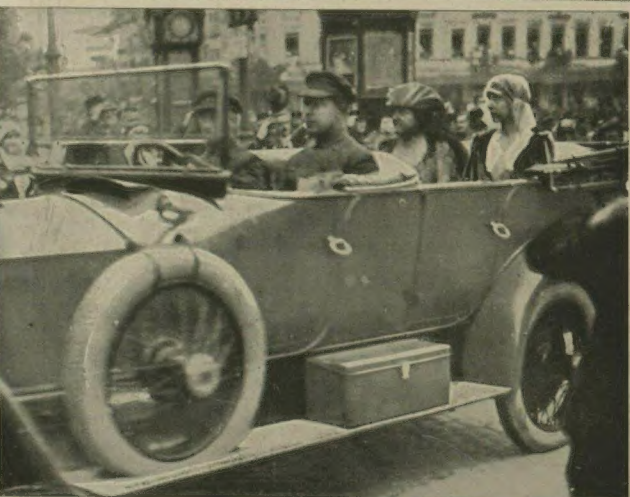
A PROCESSION IN WHICH FOURTEEN ALLIED NATIONS WERE REPRESENTED: ITALIAN SAILORS PASSING THE ROYAL STAND.



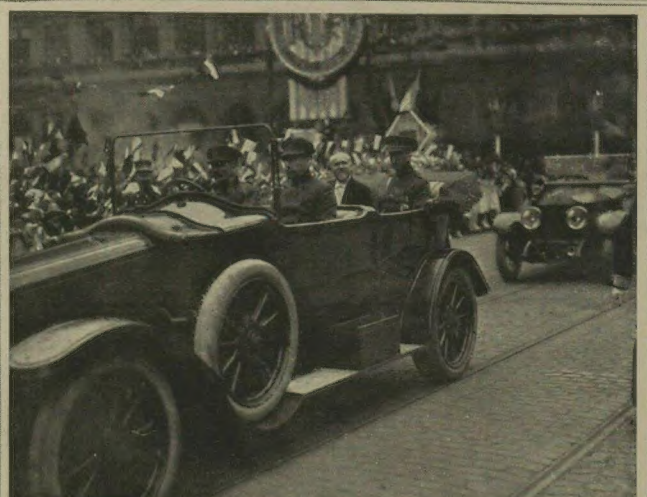
MARSHAL FOCH WITH KING ALBERT (ON WHITE HORSE) INSPECTING THE TROOPS: A CEREMONY BEFORE THE MARCH-PAST.



BRITISH SAILORS IN THE PROCESSION: THE NAVAL DETACHMENT IN OUR CONTINGENT GREETED WITH GREAT ENTHUSIASM.



THE QUEEN OF THE BELGIANS AND THE WIFE OF THE FRENCH PRESIDENT: QUEEN ELIZABETH (RIGHT) DRIVING WITH MME. POINCARÉ.



THE KING OF THE BELGIANS AND THE PRESIDENT OF THE FRENCH REPUBLIC: KING ALBERT DRIVING WITH M. POINCARÉ.

Brussels had its great Victory march on July 22, and the scenes of enthusiasm were similar to those which took place in London three days earlier. President and Mme. Poincaré arrived on the previous evening, as also did Marshal Foch, and were received at the station by King Albert and Queen Elizabeth. M. Poincaré's first care was to lay a wreath on the cenotaph to the memory of the dead, as King Albert had already done. In the

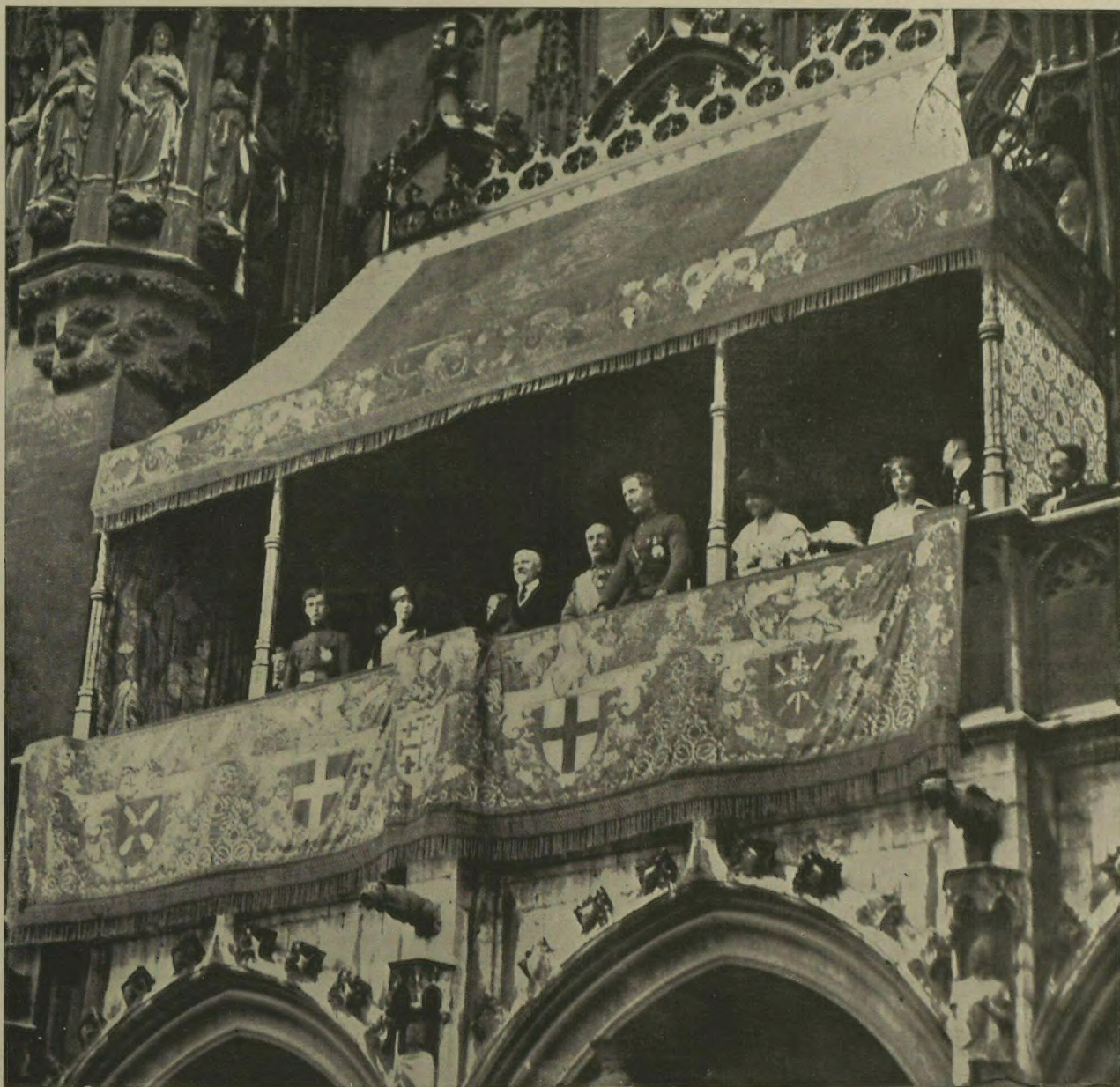
military procession on the following day, fourteen nations were represented. In addition to 5000 Belgian troops, there were contingents of Americans, British, French, Italians, Japanese, Greeks, Poles, Portuguese, Roumanians, Serbians, Czecho-Slovaks, Siamese, and Chinese. The new Belgian Navy made its first public appearance with 90 men of the crews manning surrendered German ships. The British contingent, which had a hearty

*(Continued opposite.)*



## VICTORY CELEBRATIONS IN BRUSSELS: SCENES AT THE HÔTEL DE VILLE.

PHOTOGRAPHS BY PHOTOPRESS.



ON THE BALCONY OF THE HÔTEL DE VILLE: (L. TO R.) PRINCE CHARLES, PRINCE LEOPOLD, QUEEN ELIZABETH, PRESIDENT POINCARÉ, MARSHAL FOCH, KING ALBERT, MME. POINCARÉ, PRINCESS MARIE JOSÉ, AND BURGOMASTER MAX.

*Continued.*

welcome, consisted of a Naval detachment and 32 officers and 603 men of the Devonshire Regiment, under Col. W. J. J. Collas, with band and colours. Many British Generals were present at the review, including General Heneker, commanding the Southern Division, and General Bruce Williams, commanding the Fourth Army area. In the afternoon M. Poincaré was received, amid great enthusiasm, by both Houses of Parliament, and made an eloquent

speech in reply to M. Poullet, President of the Chamber. In our photograph of the occasion Mme. Poincaré is seen with Queen Elizabeth in the left background, and King Albert in the right foreground. Marshal Foch was also present. Colour parties from nine regiments stood behind the tribune. Later, a reception was held at the Hôtel de Ville by Burgomaster Max. The lower photograph on the right-hand page shows the great crowd.



# JACK ASHORE ON IMPORTANT DUTY: FIGHTING THE FLOODS IN THE DESERTED COAL-MINES OF YORKSHIRE.

DRAWN BY OUR SPECIAL ARTIST, BRYAN DE GRINEAU.



BLUEJACKETS SAVING A YORKSHIRE COAL-MINE FROM BEING FLOODED: RE-STARTING THE ENGINES WORKING THE PUMPS AT TRENCH PIT, GARFORTH COLLIERY.

Without the help of the Navy, the coal-mines of Yorkshire would have been reduced to a disastrous condition of flooding as a result of the recent strikes. When it is remembered that, for every ton of coal extracted from a mine, some eighteen tons of water are drawn up by the pumps, it is easy to imagine the result of even a short cessation of work on the pumping machinery. The mine officials, being too few to keep it going, were utterly unable to cope with the emergency. Then it was that some 350 men of the Navy arrived, from various ships of the Fleet recently assembled at Southend, including the flag-ship, "Queen Elizabeth," and the "Lion," "Revenge," "Malaya," "Furious," and others. The Bluejackets set to work with a will, and

saved a number of mines. They camped in every corner of the boiler-houses, engine-rooms, and other buildings, and kept away from the mining villages to avoid coming into contact with the miners, who, however, did not interfere with them. At the Garforth mine, near Leeds, there are three pits—the Isabella, the Sisters, and the Trench, of which the Trench Pit is the most permeable by flood water. Our drawing shows the big crank-shaft and fly-wheel of the engine, with two sailors engaged in oiling. The engine (worked by steam) operates a compressed-air apparatus, and that works the pumps. On the left is a shift of sailors leaving to go down and attend to suction pumps below. (Drawing Copyrighted in the United States and Canada.)

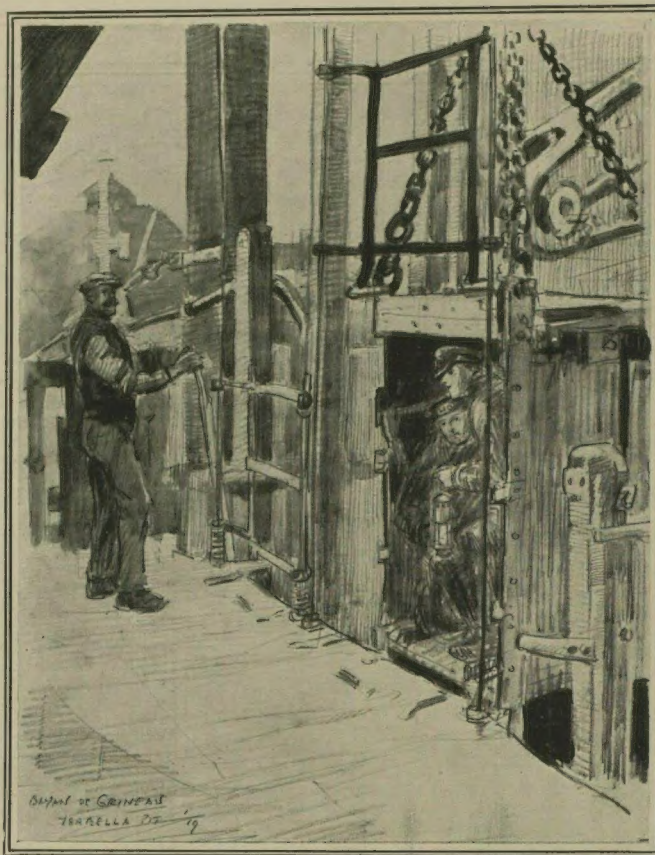


# A NATIONAL SERVICE: SAILORS SAVING FLOODED MINES.

DRAWN BY OUR SPECIAL ARTIST, BRYAN DE GRINEAU.



IN THE BOILER HOUSE AT ISABELLA PIT, GARFORTH: A NAVAL SHIFT OFF DUTY AROUND THE SILENT MACHINERY.

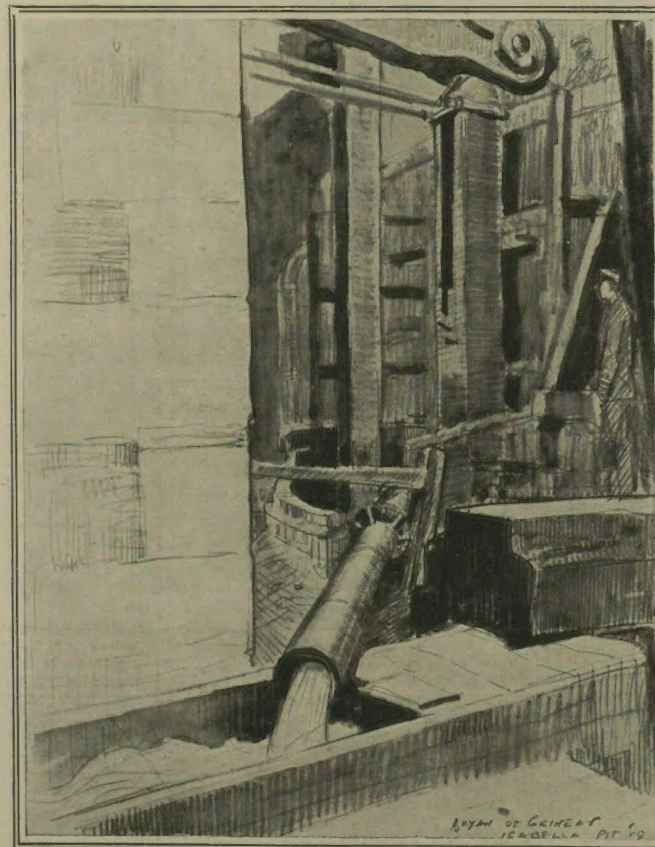


GOING DOWN IN THE CAGE TO INSPECT THE WATER IN ISABELLA PIT: A NAVAL LIEUTENANT FROM H.M.S. "LION" AND A PETTY OFFICER.



FEEDING THE BOILERS TO WORK THE PUMPS AT TRENCH PIT, GARFORTH COLLIERY, NEAR LEEDS: BLUEJACKETS SHOVELLING COAL.

The Naval shift told off to fight the floods at Garforth Colliery, near Leeds, comprised men from H.M.S. "Queen Elizabeth," "Lion," "Revenge," "Assistance," "Furious," "Malaya," and other war-ships. The pump shown in the lower right-hand photograph, it is interesting to mention, is the oldest in the Yorkshire coal fields. "The men of the Navy," writes a "Telegraph" correspondent on the spot, "are rendering magnificent service at the collieries to which they have been sent. I have just heard of their having



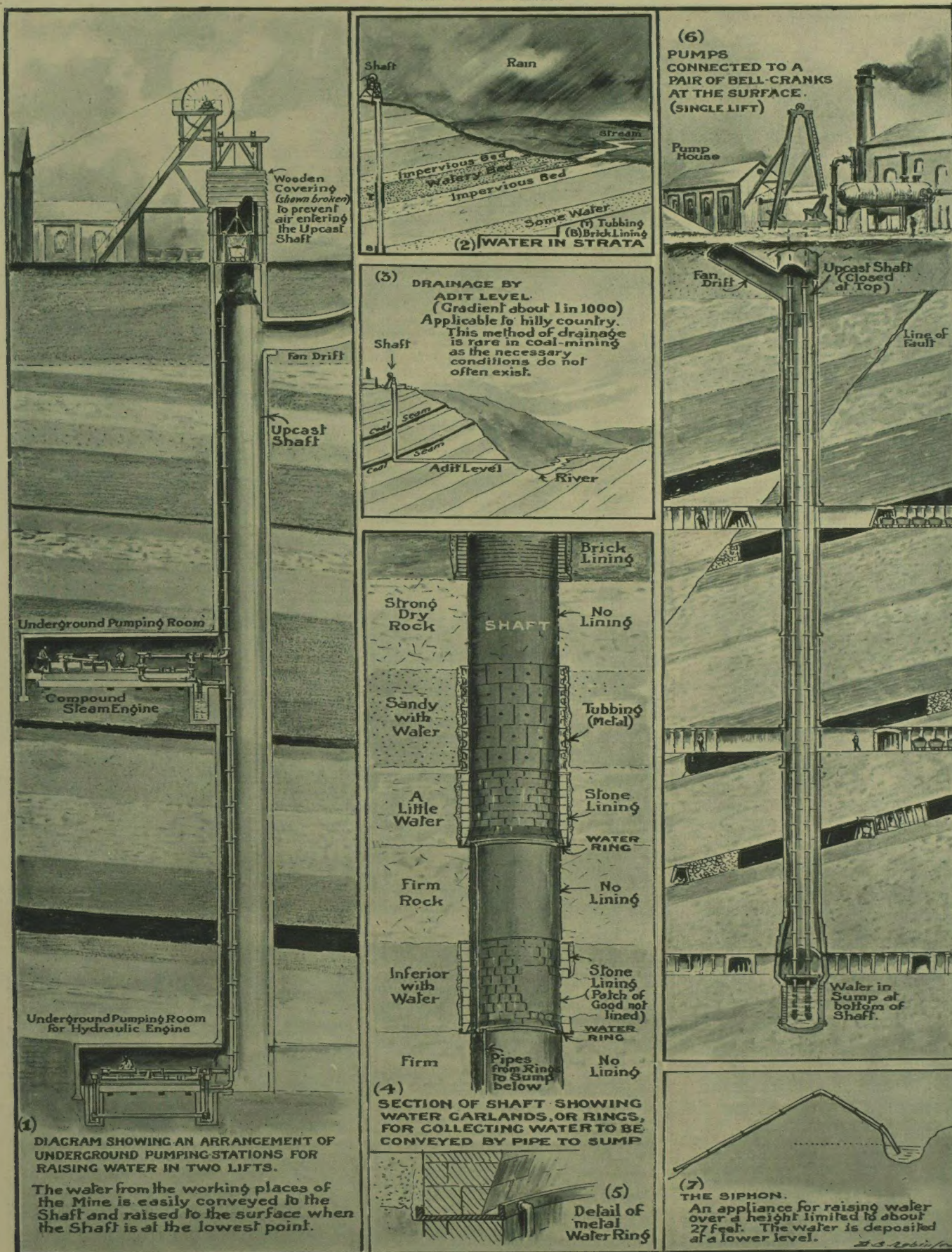
UNDER THE SUPERVISION OF A NAVAL OFFICER: WATER BEING PUMPED OUT OF ISABELLA PIT, GARFORTH, AT 800 GALLONS A MINUTE.

saved three pits. Officials, unaccustomed to the work, had endeavoured to maintain pumping operations, but the water rose to such a height, and they became so exhausted, that they were compelled to ask for naval aid. When the Bluejackets arrived the situation was serious, and it was only by strenuous work that they succeeded in saving the pits. At one, I understand, they had little rest for the first 48 hours. They are performing a great national service in saving the mines."—[Drawings Copyrighted in the United States and Canada.]



## RAIN-WATER FLOODS IN COAL-MINES: DRAINAGE AND PUMPING.

DRAWN BY W. B. ROBINSON.



## THE CAUSE AND CURE OF FLOODS IN COAL-MINES: HOW RAIN-WATER ENTERS A MINE AND IS CHECKED OR EJECTED.

As is well known, some of the strata forming the earth's crust are porous and some impervious: the volume of water held by the former may be large, and if these be pierced and broken by shafts and coal-workings, rain may find its way into a mine very rapidly. Fig. 2 shows how water may percolate from the surface of the district into beds which are not impervious and thus make its way towards the shaft or pit workings. When a comparatively small amount of water has to be dealt with at a colliery, it is

sometimes brought to the surface by winding instead of by pumping, which latter, of course, is the usual method. Other methods are by adit levels (Fig. 3); by siphons (Fig. 7); and by pumps (Figs. 1 and 6) of many different kinds. There may be Bucket or Lift Pumps, Plunger or Force Pumps, Piston Pumps. These, again, may be driven in various ways, either by means of steam, electricity, compressed air, or hydraulic pressure.—[Drawing Copyrighted in the United States and Canada.]



# THE COAL CRISIS AS A MENACE TO INDUSTRY: LABOUR AND OTHER LEADERS, STRIKERS, AND BLUEJACKETS.

PHOTOGRAPHS BY CENTRAL PRESS ILLUSTRATIONS BUREAU, G.P.O.

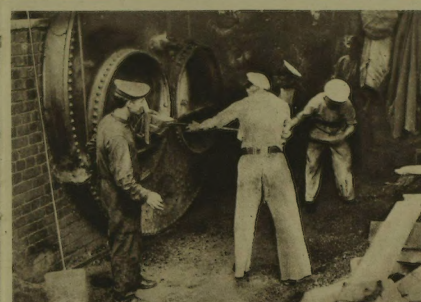
FARRINGTON PHOTO CO., L.N.A., AND SPORT AND GENERAL.



DURING THE COAL CRISIS IN YORKSHIRE: A PIT PONY HAVING AN UNEXPECTED HOLIDAY ABOVE GROUND, WITH YOUNG STRIKERS.



"HANDYMEN" AT WORK IN FLOODED MINES: A GROUP OF CHEERY BLUEJACKETS PUSHING A TRUCK IN ONE OF THE PITS.



THE NAVY TO THE RESCUE OF A FLOODED MINE IN YORKSHIRE: BLUEJACKETS STOKING BOILER FIRES AT GARFORTH, NEAR LEEDS.



SOME OF THE 349 SAILORS WHO LABOURED TO SAVE 16 MINES FROM BEING FLOODED: WORKING PUMPS AT GARFORTH.



A CHANGE FROM THEIR USUAL OCCUPATION: STRIKERS FROM THE GARFORTH COLLIERY ENJOYING A GAME OF CRICKET.



A MEETING OF THE "TRIPLE ALLIANCE" OF LABOUR AT THE CAXTON HALL, WESTMINSTER: A GENERAL VIEW OF THE PROCEEDINGS.



LABOUR LEADERS IN CAXTON HALL: (L. TO R.) MESSRS. HUDSON, GOSLING, HODGES, SMILLIE, CRAMP, AND WILLIAMS.



THE VISIT OF THE MINISTER OF TRANSPORT TO LEEDS: SIR ERIC GEDDES IN HIS CAR, THE CENTRE OF A LARGE CROWD.



THE COAL CONTROLLER: SIR EVAN JONES.



AT CAXTON HALL: MR. BEN TILLET, M.P.



A LABOUR MEMBER: MR. WILLIAM BRACE, M.P.



A WELSH MINERS' LEADER: MR. J. F. WINSTONE.



THE MINISTER OF TRANSPORT: SIR ERIC GEDDES.



PRESIDENT, MINERS' FEDERATION: MR. R. SMILLIE.



THE MINISTER OF LABOUR: SIR ROBERT HORNE.



THE EX-FOOD CONTROLLER: MR. J. R. CLYNES, M.P.



A SCOTTISH MINERS' LEADER: MR. J. ROBINS.



SECRETARY, MINERS' FEDERATION: MR. F. HODGES.

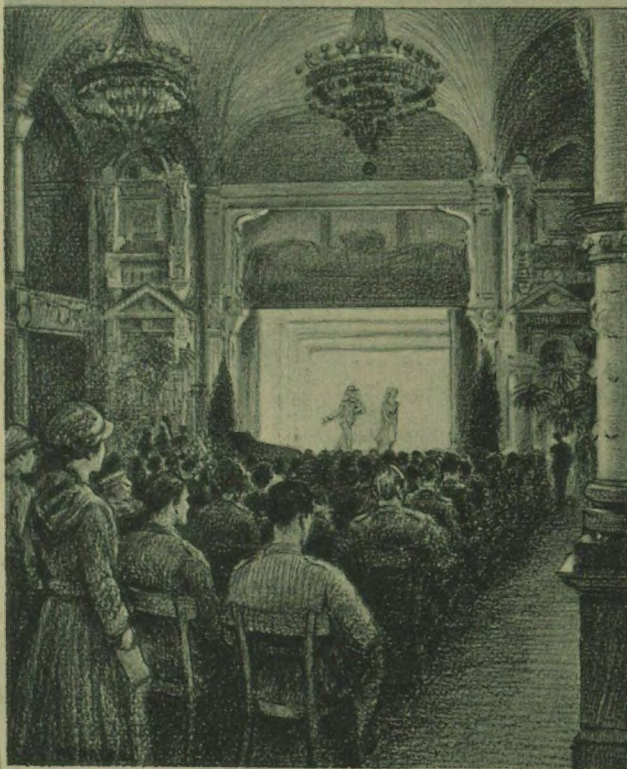
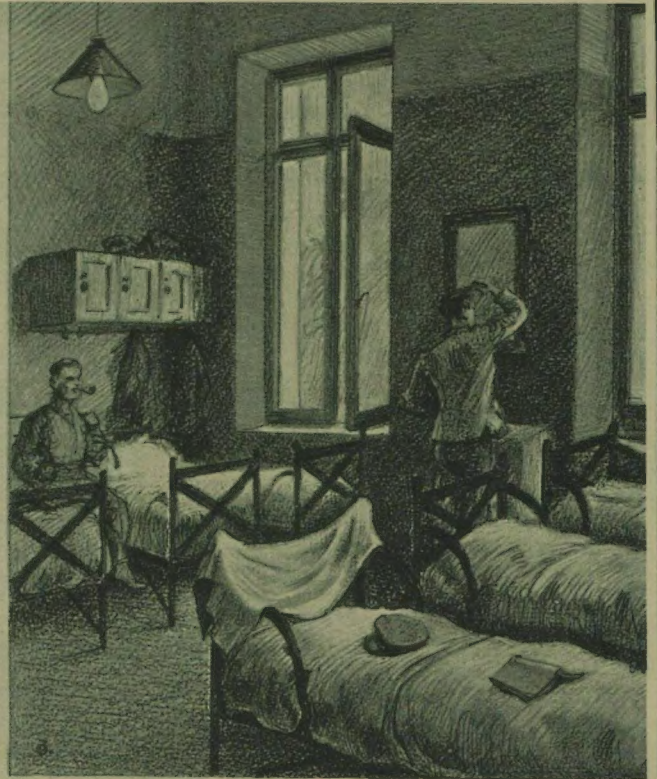
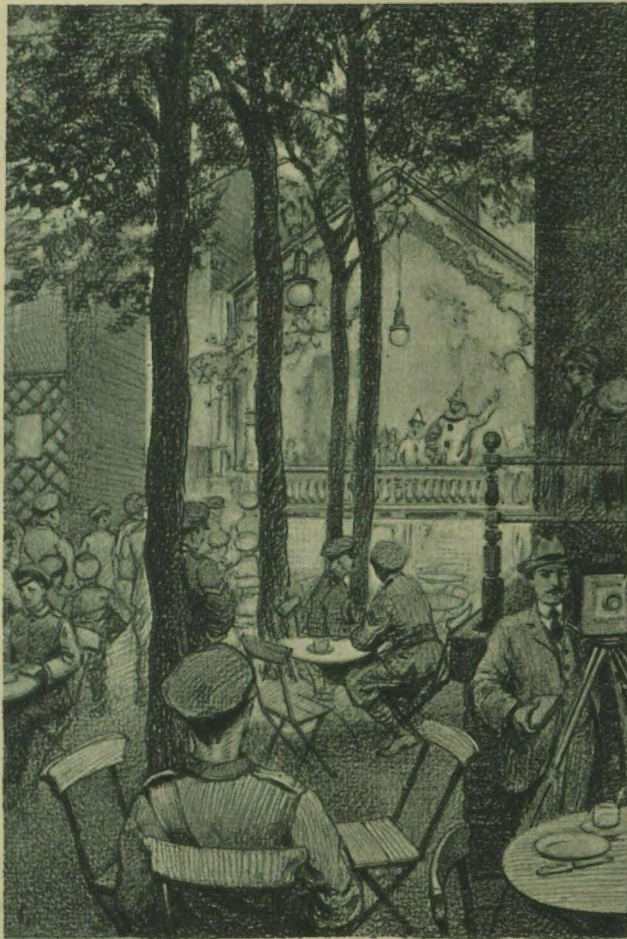
The crisis which recently arose in the coal-mining industry was one of great gravity, for it affected the whole of the country's manufacturing and commercial interests. Although the coal question was uppermost at the moment, it was closely associated with the general demands of Labour, and, as usual on such occasions, the Miners' Federation formed a "triple alliance" with the railwaymen's and transport workers' unions. Many of the coal mines in the North were in serious danger of being flooded during strikes, and as the mine officials were unable to

cope with the task of pumping, a number of Bluejackets were despatched to the scene. They did splendid work in saving several pits, and were not molested by the strikers. At one time there were 349 Naval ratings engaged at 16 collieries. The total number from the Navy available for work in the Yorkshire coalfields was stated by Mr. Bonar Law to be 80 officers and 1486 men. At that time, therefore, they could have dealt with even greater emergencies.



# BRITISH ARMY LIFE IN COLOGNE: THE LEAVE CLUB IN THE LANGASSE.

DRAWN BY MARIUS FROM SKETCHES BY OUR SPECIAL ARTIST, CHARLES DE GRINEAU.



1. AT THE BRITISH EMPIRE LEAVE CLUB IN COLOGNE: THE TEA GARDEN AND OPEN-AIR THEATRE.
3. IN THE SPACIOUS INDOOR THEATRE OF THE CLUB: A PERFORMANCE BY THE RHINE ARMY DRAMATIC SOCIETY.

The British Empire Leave Club in Cologne was organised by the well-known actress Miss Decima Moore, who conducts it with the aid of a staff of lady workers. She is seen on our right-hand page coaching a couple in the intricacies of the jazz. The club is situated in

2. FOR MEN ON LEAVE FROM THE OUTER ZONE OF OCCUPATION: A BED-ROOM IN THE CLUB.
4. A CLUB WHICH POSSESSES ALL THE AMENITIES OF LIFE: A CORNER OF THE MUSIC-ROOM.

the Langasse, in a large building formerly a German political institute. It contains big dining rooms, canteens, smoking, billiard and bath rooms, library, and music room, with a theatre and ballroom in which plays are given by the Army of the Rhine Dramatic

[Continued opposite]



## BRITISH ARMY LIFE IN COLOGNE: JAZZING AT THE LEAVE CLUB.

DRAWN BY STEVEN SPURRIER FROM A SKETCH BY CHARLES DE GRINEAU, OUR SPECIAL ARTIST IN COLOGNE



COACHED BY MISS DECIMA MOORE, O.B.E., ITS ORGANISER: DANCERS AT THE LEAVE CLUB IN COLOGNE  
FOR MEN OF OUR ARMY OF OCCUPATION.

*(Continued.)*

Company, or instruction and practice in dancing may be enjoyed. There are several blocks of dormitories, and an open-air tea-garden. An orchestra plays at all meals, and at intervals during the day. Cinema performances, concerts, lectures, and conducted trips on the Rhine or round the principal sights, run by a staff of Lady Guides, are frequent

attractions. The club caters especially for men stationed in the outer zone of the occupied area who get four days' leave. Those stationed in Cologne itself, of course, use it as well for purposes of recreation when off duty, but do not sleep or lunch there.—*(Drawings Copyrighted in the United States and Canada.)*



# BOOKS OF THE DAY

By E. B. OSBORN.

"WAR books are off," said a well-known publisher last week, after showing me a pile of manuscripts, for the most part rough diaries of the experiences of regimental officers, which were to be sent back to the authors that very day. Yet all these plain, pithy records had their everlasting value—for it has surely been a subaltern's war from first to last, so far as British leadership by land is concerned. Many years hence, it may well be, one of these rejected diaries may reappear and be recognised as a masterpiece of literature cleared for action, having the Pepsian savour of perfect naturalness. Meanwhile, alas! most publishers think they cannot afford to publish such things. People, they believe, want to forget all about the war for a time; afterwards, when the growing perplexities of peace-time get on their nerves, they will resort to the chronicles of our vast disciplined effort in war time in order to be solaced by the remembrance of a struggle for something better than higher wages and shorter hours of work.

Mr. John Murray, however, cannot believe that war literature no longer attracts the general reader, for a number of war books have been sent out from Albemarle Street during the last few days. One of them—"FALKLANDS, JUTLAND, AND THE BIGHT" (Murray; 6s. net), by Commander the Hon. Barry Bingham, V.C.—will certainly be regarded as a classic by our children and children's children. It has been the gallant author's aim to write a genuine sailor's story in the manner of the immortal "narrations" in Hakluyt, and he has succeeded in making a book which will be read from beginning to end with breathless expectation. From the moment when, on Aug. 3, 1914, he joined the *Invincible*, which was still the prey of 2000 grimy, oily, dockyard "mateys."

With busy hammers closing rivets up, to the sinking of the destroyer *Neslor* and the rescue of her commander and his surviving comrades by the German *S 15*, he keeps a sort of strangle-hold on your attention. The description of the Battle of the Falkland Islands is one of the most stirring sea stories that have ever been written; nothing that is to come concerning that dramatic act of poetic justice can possibly supersede it. Equally vivid and vivacious are the accounts of "near things" in North Sea patrol work, and of the part played by the author's command in the offensive-defensive of the destroyers at the Battle of Jutland.

Two anecdotes in this treasure-trove for a future Hakluyt (let him get to work at once!) have the right Plutarchan ring. The first is a story of Rear-Admiral Sir Christopher Cradock, who was Commander Bingham's chief in the *Britannia* during his cadetship. The young cadet had been sent with a class to the *Wave* for sail-drill—

Inexperienced, and not blessed with a good head aloft, I was "laving-out" on the Royal Yard, my body balanced thereon, left hand clutching the ridge-rope along the yard to ensure my personal safety, and right hand endeavouring to furl the sail. A hail from below, "Royal Yard!" No answer from me, and the same shout repeated. It then dawned on me that I was the object of the hail, and I duly held up the right hand. "Two hands for the Queen, my boy!" was what Cradock then said. These words made a deep impression on my mind, and throughout my service they have always rung in my ears when risks were being run and dangers to life and limb encountered.

The second gives the last words of that rare spirit Maurice Bethell, when the *Neslor* was sinking rapidly and her commander had given his last order, "Abandon Ship!"—

The motor-boats and Carley floats were quickly filled; and as the dinghy was badly broken up by shell-fire, there seemed to remain for me only the possibility of a place in the whaler. Bethell was standing beside me, and I turned to him with the question, "Now where shall we go?" His answer was characteristic of that gallant spirit, "To Heaven, I trust, Sir!" At that moment he turned aside to attend to a mortally wounded signalman, and was seen no more amidst a cloud of fumes from a bursting shell.

If only these two stories survived, the historian of a century hence could yet deduce the blossoming and

the fruition of the spirit of those who fought under the White Ensign in the German War.

"THROUGH A TENT DOOR" (Murray; 8s. net), by Robert William Mackenna, is another excellent war book from the same publisher. It is a sheaf of meditations, rather than impressions, and the author—a medical officer who served on the West Front—has that essayist's gift of cheery casualness which allures the reader on till he finds himself deeply pondering the mysteries of war as a phase of social living. "A SOLDIER'S EYE-VIEW OF OUR ARMIES" (Murray; 6s. net), by Lieut.-General Sir John Keir, who commanded the Sixth Army Corps

does, that the Army as it was gave an intelligent man without means a character, but not a career. In "FIELDS OF VICTORY" (Hutchinson; 7s. 6d. net), Mrs. Humphry Ward describes the triumph of the British Armies in the "Hundred Days' Battle" of 1918 with that mastery of detail and wealth of information from high-placed persons which one expects from so accomplished a woman of such ample affairs. She believes that European reconstruction is possible on the old moral lines, because "whatever else in the Christian system is breaking down, the Christian idea of a common fellowship of man holds the field as never before." For a last war book, "S.O.S.: AMERICA'S MIRACLE IN FRANCE" (Lane; 7s. 6d. net), by Isaac F. Marcossion, that keen observer of large issues (I remember him telling me it would require a "combination of a Napoleon and a Nero" to clean up the Russian mess!), may be read as an authoritative analysis of America's amazing effort in organising her gigantic Army. America showed such a genius for supply that, if she had had another year, her success in strategy was inevitable. Mr. Marcossion is sure that the lessons of co-ordination learnt in the great and sudden war emergency will have their constructive effects in the United States for many a year. And we shall know it—we who must face the far-reaching campaign on every front of American industrial competition.

Most of the younger poets must be on strike at present, for very little of their work—or play!—is coming to us this month. They ought to be doing what the miners refuse to do—doubling their output of the fuel of emotion, whether it be *sæva indignatio* or not. Meanwhile, we can solace ourselves with "THE FOUR YEARS" (Elkin Mathews; 7s. 6d. net), in which Laurence Binyon's war poems are collected and newly augmented. The volume is dedicated to the late Second Lieutenant Richard Henry Powell in a three-line valedictory—

Strong, loyal-souled, full-hearied, blithely brave,  
Only remembering Love knows all he gave:  
Beautiful be the stars above his grave,

which will delight all who remember him as the kindest and most courteous of comrades in the Street of Adventure or just a little way beyond it. Mr. Binyon has never written a line lacking in distinction, and his war verse, full of passion in retrospect, like a sunset glow, is the best written during the critical ordeal by any poet who did not go down into the Golgotha of the trenches. His "For the Fallen" is an immortal thing, the noblest and proudest lament over our glorious dead, and it may well be true that some lover of poetry suggested that one of its stanzas—

They shall not grow old, as we that are left  
grow old:  
Age shall not weary them, nor the years condemn.  
At the going down of the sun and in the morning  
We will remember them—

should be inscribed on the memorial pylon in Whitehall. But there are many poems which rise to the plane where thought and emotion burn in a clear flame, and reveal to us what may be wrought of our new heritage of—

Victory; proud loss; and the enduring mind.

Never was such a band of cricketers gathered together for any tour as has assembled to do honour to the greatest of all masters of our incomparable game in "THE MEMORIAL BIOGRAPHY OF DR. W. G. GRACE" (Constable; 21s. net), which is edited by Lord Hawke, Lord Harris, and Sir Home Gordon, and issued under M.C.C. auspices. The Silurian giant's Doric artistry is anatomised by competent experts, and we are easily persuaded that, if he had learnt the quick-footed modern style of batting and been able to practise it on modern marl-fed wickets, nobody—not even Barnes—could ever have got him out. Moreover, he bowled googlies without knowing it, just as Aeschylus, according to Sophocles, did the right dramatic thing without knowing why. And the quaint, lovable personality of the "Old Man" is brought out in this book, which, now we have time to think of cricket again, will be eagerly read on both sides of our planet.



FROM THE CITY OF PARIS TO MARSHAL JOFFRE: THE SWORD OF HONOUR PRESENTED TO THE VICTOR OF THE MARNE.

The sword presented to Marshal Joffre is the work of M. Henry Nocq. The enamelled grip bears the arms of the City of Paris—a silver-keeled ship—with the lilies of France above. On the other side of the grip, on scarlet enamel with gold stripes, is the device, "Fluctuat nec mergitur." On the guard-plate, a helmeted Gallic warrior is seen fighting an eagle.

in France for a time (why he was relieved of his command is a question that will have to be answered explicitly some day), is a well-argued plea for the nationalisation of our Army. Even those who disagree with the author's ideals will be all the better for trying to understand his point of view, for many people—several patriotic Labour representatives—think as he



## PARIS HONOURS HER DELIVERERS: SWORDS FOR MARSHALS.

THE sword of honour presented by the City of Paris to Marshal Foch is of very simple design. The grip is formed by a figure representing France, straight as a caryatid, draped in a tricolour flag. The guard-plate consists of two figures representing Alsace and Lorraine gazing upwards to the Mother Country, and holding a wreath over which is the inscription, "1914-1918." The top of the pommel consists of a helmet as worn by generals and soldiers alike in the war. Underneath this is a frieze on which cavalrymen and infantrymen are depicted. The guard is terminated by a figure of Victory attached to the pommel by her outspread wings. She drops a wreath of laurels from her hands on which are the seven stars of marshaldom in diamonds. Below the guard-plate is the Gallic cock crowing its victory. On the blade is the dedication from Paris to the Marshal. The whole of this beautiful work is in gold, and the only additional ornamentation is the row of seven diamonds.



THE GIFT OF PARIS TO MARSHAL FOCH: A SWORD OF HONOUR, DESIGNED BY M. HENRI VEVER.

As a mark of her profound gratitude for their great achievements in the war, and in accordance with an old French military tradition, Paris has presented to Marshals Foch, Joffre, and Pétain swords of honour, to be worn by them on great occasions. We illustrate above the swords presented to Marshals Foch and Pétain, while that given to



IN Marshal Pétain's sword the grip is formed by an upright figure representing the City of Paris draped in the folds of the French flag, and the pommel consists of a laurel wreath which she is holding with arms out-stretched above her head. The guard-plate consists of the symbolic boat which is part of the City's coat of arms, with the Gallic cock as figure-head, and other heraldic details from the arms of Paris, executed in enamel, disposed upon it. On the inner side of the guard, at the lower end, are seen the seven stars of a Marshal of France. The guard is encircled in the middle by a band of platinum bearing two crowns of laurel and engraved with the two great dates of the war, 1914 and 1918. The scabbard is in blue morocco, the colour of the Marshal's bâton.

THE GIFT OF PARIS TO MARSHAL PÉTAÏN: A SWORD OF HONOUR, DESIGNED BY M. EDMOND BECKER

Marshal Joffre is shown on another page. The work of designing and executing the sword for Marshal Foch was entrusted to the jeweller M. Henri Vever. That for Marshal Pétain is the work of M. Edmond Becker, the sculptor. The details of the designs in each case are explained in the notes given above.



# KEEPING GREEN THE MEMORY OF "THE GLORIOUS DEAD": BROTHERHOOD IN SORROW AT THE WHITEHALL CENOTAPH.

DRAWN BY A. FORESTIER.



WHERE ALL CLASSES MINGLED IN A COMMON TRIBUTE TO THEIR FALLEN HEROES: THE MEMORIAL TO THE DEAD IN WHITEHALL AS A NATIONAL SHRINE.

The Cenotaph erected in Whitehall in remembrance of "The Glorious Dead" for the great Victory march through London was left there temporarily after the occasion. Meanwhile, it has become, as it were, a national shrine, where people of all classes have been drawn together in a spirit of brotherhood, as sharers in a common grief and pride in their fallen heroes, to render tribute to their memory. Every day since the procession there has been a gathering of all sorts and conditions round the monument, for the

purpose of placing wreaths and flowers upon it, and flower-girls have plied a busy trade among the mourners. It is a notable fact that, as buses pass the Cenotaph, men sitting on top stand up and take off their hats. A strong desire has been expressed that the Cenotaph should be converted into a permanent memorial, and re-erected, in lasting materials, either on its present site or elsewhere.—[Drawing Copyrighted in the United States and Canada.]



# "ABOUT A NUMBER OF THINGS."

A Chat on Science by SIR RAY LANKESTER, K.C.B., F.R.S.



## POND-SNAILS AND BLOOD-RED.

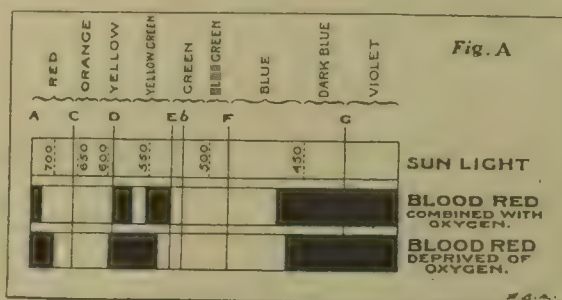
THE blood of man is red, owing to the fact that it consists of almost equal parts of a clear, nearly colourless liquid and of minute mufin-shaped corpuscles floating in the liquid. There are about sixteen hundred million of them in a dessert-spoonful of blood. These "corpuscles" are soft and semi-liquid. Each measures 1-3200th of an inch across, and consists of a red-coloured transparent substance called "blood-red," or "hæmoglobin," mixed with a nearly equal quantity of "slimy" white-of-egg-like material. The blood-red hæmoglobin can be dissolved by water, and will then separate from it as crystals of pure "hæmoglobin," which are called "blood-crystals." They differ a little in shape according to the species of animal from the blood of which they are obtained. Some are drawn here in Fig. B. All mammals (warm-blooded quadrupeds), birds, reptiles, and fishes have red blood which owes its colour to the blood-crystals or hæmoglobin of "red-blood-corpuscles."

Until fifty-five years ago we knew little more of this "hæmoglobin," and it seemed as though it existed only to give its noble colour to the blood, and to show through the skin in the healthy blush of the cheek, the coral-red of the human lips and of the cock's comb and of the turkey's wattles—also, perhaps, to betray by the redness of man's nose an unhealthy state of the circulation! It is a very complex but definite chemical body—a chemical union of the elements carbon, nitrogen, oxygen, hydrogen, and sulphur with a small but definite quantity of iron. Then it was studied by aid of the spectroscope, and its real significance revealed.

It is proverbial that one cannot trust to colour as a means of recognising a given substance—"Ne crede colori." You can make a solution in water of carmine and a little yellow pigment which to the unaided eye will pass for a solution of blood-crystals. Many other red solutions look like it; and so with yellow, green, and blue substances—you cannot be sure what they are by their colour alone. If you allow white sunlight to pass through a prism you separate its "trains" and spread them out as the colours of the rainbow. You can so arrange that the white light coming through a narrow slit into a dark chamber shall be spread out as it passes through a prism of glass into an elongated band in which the red, yellow, green, blue, and purple "trains" of light which are mixed in white light are separated and follow one another in that order, one passing gradually into the next. This band of rainbow colours is called "the spectrum" (Fig. A, top). Now, if you put a glass tube containing a coloured solution in front of the slit where the white sunlight enters the otherwise dark chamber, you find, as you would expect, that a red liquid lets the red pass, but stops—in fact, is "opaque" to—the other colours more or less; a green liquid stops all or nearly all but the green; a blue all but the blue. The "stopped" colours are simply absorbed, and where they were seen in the spectrum of white light it is now black and dark. Few, if any, red-coloured liquids absorb exactly the same extent or part of the spectrum; nor are all yellow, or all green, or all blue liquids exactly alike in this matter. Their minor differences of "tint" are due to their absorbing or else letting pass more or less of the light of another colour. A very curious and important fact was discovered when various transparent coloured bodies (liquids and solids) were tested in this way. It was found that some (but by no means all) transparent coloured bodies cause detached black bands of absorption in the spectrum (see Fig. A). They are called "absorption bands," and can be accurately measured and their exact position in the spectrum fixed. Such coloured bodies as give detached absorption bands can be recognised and identified with absolute certainty by the position of those bands in the spectrum. As shown in Fig. A, records of them are kept by which their position is shown as compared with that of certain fine dark lines always present in the spectrum of sunlight, called after their discoverer, "Fraunhofer's lines,"

and named by letters, as seen in Fig. A. And even more exactly the wave-lengths of the trains of light absorbed are ascertained. The figures 700 to 450 in the diagram of the spectrum of sunlight in Fig. A give the wave-lengths of the light-waves of each part of the spectrum in very minute units—namely, units of one ten-thousandth of a millimetre—and thus we can fix and state once for all the position of any "absorption bands," so that the substance producing them can be unerringly recognised when its presence is suspected. The purple solution of a compound of the element manganese (known as Condy's fluid) gives six detached "absorption bands" in the green and blue part of the spectrum; leaf-green, or chlorophyll, gives a remarkable series of separate absorption bands, and so do very many coloured bodies derived from plants and from animals. Each can be recognised with certainty by these bands, and the position of the bands exactly

deoxygenised solution of hæmoglobin with a little air, it at once takes up some oxygen and becomes bright red again, and again shows two absorption bands in the spectrum. And we can again take away the oxygen with the deoxidising chemical and make it purple and one-banded, and again brighten it with oxygen, and so keep on ringing the changes. In fact, the hæmoglobin becomes bright-red two-banded oxy-hæmoglobin by taking up oxygen, and "reduced" or simple one-banded claret-coloured hæmoglobin when deprived of that oxygen. And so we have the explanation of its presence in the blood. The hæmoglobin or blood-red is there as a carrier of oxygen, taking up that gas as it passes through the lungs and conveying it to the most distant parts of the body, where it is given up to the living tissues more greedy of it than the blood-red itself, which returns darkened in tint in the veins to the heart, and so once more to the lungs for a fresh supply of oxygen and a renewal of its bright colour.



TO SHOW, THE "ABSORPTION-BANDS" SEEN IN THE "SPECTRUM" OF SUNLIGHT WHICH HAS PASSED THROUGH A WEAK SOLUTION IN WATER OF BLOOD-RED OR HÆMOGLOBIN.

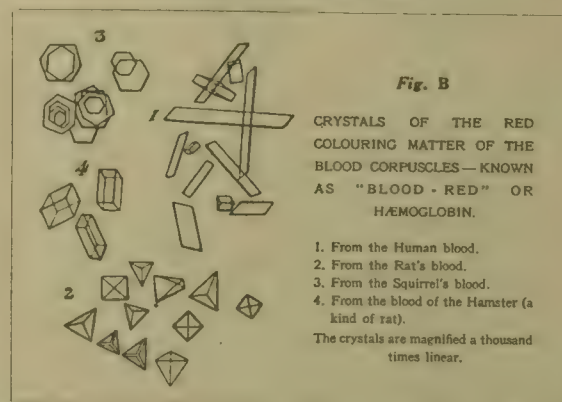


Fig. B  
CRYSTALS OF THE RED COLOURING MATTER OF THE BLOOD CORPUSCLES—KNOWN AS "BLOOD-RED" OR HÆMOGLOBIN.

1. From the Human blood.
2. From the Rat's blood.
3. From the Squirrel's blood.
4. From the blood of the Hamster (a kind of rat).
5. From the blood of the Pond-snail.

The crystals are magnified a thousand times linear.

measured, so that even a minute drop of a weak solution of such a colouring matter is sufficient for decisive examination, though chemical analysis would be hopeless as a means of recognition.

In 1864 Sir George Stokes, of Cambridge, found that a solution of blood-red or hæmoglobin gives two well-marked absorption bands in the yellow and green part of the spectrum (Fig. A). When the blood of man or other animal has passed through the lungs it becomes bright red; but, before being exposed in the lungs to the oxygen of the inspired air, it is dark and somewhat purple. It was found that a watery solution of hæmoglobin in a glass test-tube, if shaken up with air, becomes bright red, just as does the blood in the lungs, and that it loosely combines with or holds the oxygen gas of the air. It is then that it shows the two absorption bands (Fig. A). But if the loosely combined oxygen be taken away from the solution of hæmoglobin—as it can easily be by adding to the solution a few drops of a certain oxygen-seizing chemical—then the hæmoglobin solution becomes of a bluer purple hue, and, when examined with the "spectroscope" (a convenient arrangement of slit and prism to produce a spectrum), is found to give no longer two absorption bands, but only one, not identical with either of the two previously there (see Fig. A). Now, if we shake up the purple-looking

The discovery of the absorption bands of hæmoglobin has enabled us to recognise its presence in various small animals and in unexpected parts of the body. It has thus been shown that the red colour of meat—that is, of animals' muscle—is due to the presence of hæmoglobin in the muscular fibre, not to blood in their blood-vessels. The muscles require much oxygen, and the hæmoglobin of the muscular fibre holds it and stores it. Many marine worms and the earth-worms and river-worms have beautiful networks of blood-vessels, the blood in which is red. It is proved that this is due to hæmoglobin in solution, by the absorption bands produced by it in the spectroscope and by the crystals which it forms. Insects and spiders and such creatures as crabs, lobsters, and shrimps have no hæmoglobin; neither their blood nor their muscles are red. Nor have the molluscs red blood or red muscles, with rare and curious exceptions. And so we are brought back to the flat-coiled pond-snail (*Planorbis cornuus*) of which I wrote last week. It is one of these exceptions. It was known to eject a dark red fluid from its body when cut or pricked. I examined this red fluid with the spectroscope, and proved conclusively that the colour was due to hæmoglobin and that the fluid was the snail's blood. The common long-shelled pond-snail (*Lymnaeus*) has colourless or pale-bluish blood, and so have all other molluscs, except two or three of the bivalves. Here, then, we are brought by the pond-snails to this puzzling and interesting question—Why should the flat-coiled pond snail have a rich stock of the oxygen-carrier hæmoglobin in its blood, and the other snails have none? And yet another startling fact is revealed by the spectroscope when used to explore the colours of snails. The little globular mass of muscles which moves the muscles of the pond-snails' rasp-like tongue is red, and in marine snails it is rich ruby-red. All the other muscles of these snails are colourless and the blood in all except *Planorbis* is colourless or very pale blue. Yet this pink or ruby-red ball of rasp-muscles was shown when I examined it with the spectroscope to owe its colour to hæmoglobin—the very same red oxygen-carrying blood-crystals which we find in the red corpuscles and the muscular fibre of man and the great animals allied to him! It seems that hæmoglobin can quite exceptionally be present in some animals and in some parts of animals, and not in others; but it is difficult to connect its presence in all cases with any obvious and special need for it. I found it in the nerve cord of a marine worm, which it stains bright crimson, although there is none in that worm's blood. Some water-fleas (*Crustacea*) living in stagnant ponds have it dissolved in their blood; and so—absolutely alone among insects—has the ruby-red larva of the harlequin-fly (*Chironomus*), which lives in the black foul mud of ponds, where oxygen must be a rare and precious commodity. Boys used to call it a "blood-worm," and use it as a bait to catch sticklebacks.



# AN OLD MASCAGNI OPERA NEW TO LONDON: "IRIS"—THE CLIMAX.

DRAWN BY OUR SPECIAL ARTIST, STEVEN SPURRIER.



AN ITALIAN OPERA WITH A JAPANESE SETTING AS A NEW ITEM IN COVENT GARDEN'S VERY SUCCESSFUL SEASON:

MME. MARGARET SHERIDAN AS THE HEROINE IN THE TRAGIC FINALE OF THE SECOND ACT OF "IRIS."

Hitherto Mascagni has been mainly known in this country by one work, "Cavalleria Rusticana," with its famous Intermezzo. His Japanese opera, "Iris," was composed over twenty years ago, but it has not been heard in London until Covent Garden produced it recently. The story tells how Iris, a pure and simple maiden, is lured from her blind father's cottage by Osaka, a rich young libertine, and his accomplice, Kyoto, a procurer, and is brought to the latter's house of ill-fame in the city. Her blind father, who has

cursed his daughter, arrives, and Iris throws herself over a precipice. We show the scene a moment before this. In the centre is Iris, with her father on the steps behind with arm outstretched. On the left in the foreground are Osaka (right) and Kyoto (left). The chief honours fell to Mme. Margaret Sheridan as Iris and Signor Agostino Capuzzi as Osaka. M. Gustave Huberdeau as the father and M. Robert Cousinou as Kyoto did well in lesser parts.—[Drawing Copyrighted in the United States and Canada.]





## ON COMMERCIAL AIRCRAFT.

By C. G. GREY,

Editor of "The Aeroplane."

AT the present moment there is considerable debate among those concerned with aeronautics as to the lines along which civil aviation is likely to develop. Those who look too far ahead have visions of vast airships carrying hundreds of people daily between the Old World and the New. Our present largest airships are somewhere in the neighbourhood of 1,000,000 cubic-foot capacity, yet Major-General Seely, our Under-Secretary of State for Air, speaking at the Royal Aero Club's dinner to the officers and crew of H.M. Airship *R 34* recently, referred airily to visions of airships of

at the *R 34* dinner—the rôle of airships is that of long-distance non-stop vehicles, whereas aeroplanes will do shorter journeys at very much higher speeds. It is a curious fact in the history of aeronautics that practically from the beginning the speed of the fastest aeroplanes has been just about twice that of the speed of the fastest airships. That is to say, when man first began to fly (in about 1908), aeroplanes flew at approximately thirty miles an hour, and the curious little airships of the period did about fifteen miles an hour. Just before the outbreak of war, the fastest aeroplanes in

common use were doing eighty miles an hour or thereabouts, and the best Zeppelins were doing something like forty miles an hour; and, though actually the record aeroplane speed was 120 miles an hour, it was said that for a short period a Zeppelin had been forced up to sixty miles an hour. To-day our fastest aeroplanes are doing just over 160 miles an hour, and the fastest airships—which are, one believes, the latest Zeppelins produced before the Armistice—are credited with eighty miles an hour.

Now, eighty miles an hour means eighty miles an hour

through the air; and consequently, if, as may frequently occur, the airship in question has to face a head wind of fifty miles an hour, it means that the speed of that airship over the ground or over the sea is only thirty miles an hour. On the other hand, the 160-mile-an-hour aeroplane flying against the same wind will nevertheless maintain a speed of 110 miles an hour over the ground. This means that, against a strong head wind,

an airship is no faster than a moderately fast motor-car on the road, is slower than our fastest battle-cruiser on the water, and very much slower than a fast railway train. An aeroplane, on the other hand, can still travel at double the speed of even a fast train on a long journey. Consequently, the aeroplane must always have preference where sheer speed is desired. An airship, however, has certain very great advantages in that engine breakdown does not necessarily mean descent either on ground on which it may be impossible to land, or on sea in which no seaplane can live. Moreover, the experience of the Zeppelin people before and during the war showed that, in the event of complete engine breakdown and a forced landing to avoid being carried out to sea, an airship can be crashed in a forest, or even on a bare hillside, in such a way that, although the airship is utterly wrecked, the crew and passengers are not hurt. It was the boast of the commercial side of the Zeppelin Company before the war that,

although they had carried some tens of thousands of passengers, they had never lost a life in an accident. The only lives lost in Zeppelin accidents before the war were in two German naval airships, one of which was wrecked in a thunderstorm at sea, and the other of which caught fire in the air over the Johannisthal Aerodrome.

All sorts of people have tried to work out the cost of running aeroplanes and airships, and the estimates have varied immensely—all the way from something like £60 per mile for each ton carried (commonly known as "per ton mile") down to somewhere about 3s. 6d. per ton mile; but all seem to agree that at present really long-distance journeys for passengers either by aeroplane or airship must be out of the question because of the very enormous cost. For example, nobody except a millionaire is going to pay £500 for a fare to India when he can do the journey first class, in a very comfortable ship, for somewhere about £50. On the other hand, when ton-miles are reduced to ounce-miles, one finds that the cost of carrying a half-ounce letter by air to India is within the financial capabilities of anybody who really wants to communicate hurriedly but amply with people in India. Also, the cost is very much less than that on a cablegram, and the time should be but little longer, considering the delays which occur in long-distance telegraph lines. Actually, very little is known at all about the cost of running air-lines, because hitherto all the long journeys have been done by Government machines with Government pilots and crews, and, consequently, they have been made at the maximum cost with the minimum of efficiency, though perhaps with the maximum effectiveness.

It seems probable that the competition for the £10,000 prize put up in such a sporting manner by the proprietors of the *Daily Express* for a flight with a commercial load of a ton from England to India and back, and from England to the Cape and back, will provide something like reasonably accurate data as to running costs. Nobody is going to enter a machine for that competition with the knowledge that they will probably spend £50,000 or more in the mere hope of winning a £10,000 prize; so we may expect to see a good many preliminary trial trips done in order that aeroplane designers and constructors may acquire a certain amount of knowledge as to what it will cost them to do the whole journey as set out by the rules of the competition. When these figures are available,



PHYSICAL TESTS FOR R.A.F. PILOTS: BLOWING A COLUMN OF MERCURY UP AN INSTRUMENT, TO TEST THE MUSCULAR TONE OF THE ABDOMINAL WALL.

Photograph by Clarke and Hyde.

10,000,000 (ten million) cubic feet capacity. General Seely has always shown intense keenness on anything concerned with aeronautics; but one fears that it will be some time before even he, or Mr. Churchill—who is equally enthusiastic over aerial affairs—will contrive to raise the money necessary to build a 10,000,000 cubic-foot airship.

Of course, the Air Ministry could afford to build an airship of that size; but, if they did so, it would mean depriving the Royal Air Force of a number of officers, men, and aeroplanes which would be more valuable in war than such an airship would be. Now that we are back again approximately on a peace basis, the Air Ministry is up against very much the same problem as that which before the war confronted Mr. Churchill. In those days it was more difficult to obtain money for aeronautics than it is now, and Mr. Churchill was faced with the alternative of having a few big airships for the Navy and hardly any aeroplanes, or of having a number of aeroplanes (with corresponding personnel) and practically no airships. Very wisely, he decided to spend what money he could get on aeroplanes, and he practically cancelled the airship programme. It is true that the German Zeppelins did good work in the war; but our aeroplanes, especially those built with the Admiralty's money, did very much better. In fact, the best service that the German Zeppelins did was to bring some of the terrors of war into this country and rouse the populace to a sense of its peril. The Navy's aeroplanes, on the other hand, practically saved the British Army at a time when the Army's aeroplane programme very nearly resulted in the defeat of the R.F.C. in France.

Somewhat similarly, if the Air Ministry now proceeds to spend too large a sum on airships, the result will be that the orders for aeroplanes will have to be cut down, the aeroplane personnel of the Royal Air Force will have to be reduced, and we shall find ourselves as we were at the outbreak of this war, with a wholly inadequate force of aeroplanes and pilots. The Air Ministry will therefore have to exercise very nice discrimination in apportioning the amount of money to be spent on airships and on aeroplanes respectively. The enthusiasm aroused by the successful double crossing of the Atlantic by *R 34* naturally increases everybody's belief in airships, and there is no doubt that for commercial purposes—as General Maitland said



PHYSICAL TESTS FOR R.A.F. PILOTS: USING A RECORDING METER FOR MEASURING THE LUNG CAPACITY.

Having filled his lungs to the fullest extent, the candidate breathes out through a special gas-meter which records the quantity of air.—[Photograph by Clarke and Hyde.]

it may be possible to form some accurate idea of the possibility of running either airship or aeroplane services at a reasonable price. In the meantime, commercial aviation seems to be confined for the time being very largely to pure joy-riding, in which very short trips are given for a comparatively high price, which could not be paid by any of the passengers if they intended to take long journeys at the same rate per mile.



## PHYSICAL TESTS FOR R.A.F. PILOTS: LUNG POWER AND QUICKNESS.

PHOTOGRAPHS BY CLARKE AND HYDE.

THE left-hand photograph of the central pair on this page illustrates a test for quickness of co-ordination between perception and action. The subject watches the small disc on the right of the pendulum, and, when this is seen to change colour, he presses a key which arrests the string of the falling pendulum. The string is seen trapped at 18 100-ths of a second, the average time taken by a successful scout-pilot. The adjoining right-hand photograph shows a more delicate apparatus serving a similar purpose. The pointer on the dial is started in motion, and the subject presses a lever as soon as the movement of the dial is perceived. By this apparatus also the "reaction" to a sound-stimulus, such as a Klaxon horn, can be registered, the subject pressing the lever, which arrests the time-recorder, immediately he hears the horn.

The left-hand photograph of the two at the foot of the page shows a test that is carried out in total darkness, except for the opal screen on the left, which is

*(Continued opposite.)*

FOR DETECTING RESPIRATORY FATIGUE: A SPECIAL METER FOR TESTING LUNG CAPACITY AGAINST RESISTANCE.

*(Continued.)*

brilliantly illuminated and shows up the three pins in silhouette. The subject's task is to set the centre-pin in line with the other two. Ten such attempts are usually made and the results recorded. Accuracy in this test is associated with accuracy in landing. Appropriate eye treatment may be given to overcome the particular defect in landing. In this way many pilots during the war were converted into satisfactory landers. In the adjoining (right-hand) photograph the subject is seen seated at a table holding a cord in his hands, and looking towards the apparatus (that seen in the left-hand photograph), which is situated 20 ft. away from him. He has before him the vertical board (shown in the left-hand photograph) with a horizontal slit, through which he sees the middle portion of the two vertical pins. The two outer pins are stationary, but the centre one is movable along the line of sight by means of the cord, which is attached to a bogie on rails.



TESTING QUICKNESS OF CO-ORDINATION BETWEEN PERCEPTION AND ACTION: PRESSING A KEY WHEN A DISC CHANGES COLOUR.



PRESSING A LEVER WHEN A DIAL MOVES: ANOTHER APPARATUS TO TEST QUICKNESS, ALSO REACTION TO SOUND-STIMULUS.



TESTING ACCURACY OF EYE ASSOCIATED WITH ACCURACY IN LANDING: SETTING THE CENTRE PIN IN LINE WITH THE OTHER TWO.



ANOTHER TEST WITH THE SAME APPARATUS SHOWN IN THE ADJOINING PHOTOGRAPH: MOVING THE PIN BY A CORD 20 FT. AWAY.

Pilots of the Royal Air Force are subjected to various physical tests by the medical staff of the Air Ministry. Our photographs were taken, by permission of the Ministry, at the Croydon Aerodrome, where there is a well-equipped laboratory under the control of the Director of Medical Research, R.A.F. The two illustrations on the adjoining page show instruments for testing and recording a pilot's lung capacity and breathing power. In one the subject is seen preparing to blow up steadily a column of mercury as high as possible. This is a test for the muscular tone of the abdominal wall. Another test with this instrument is to ascertain the length during which the subject can, with the breath held,

keep the mercury at a given height. It indicates his resolution and nervous stability, and detects fatigue. When using the apparatus shown in the other photograph on the adjoining page, the subject fills his lungs to the full and then breathes out as deeply as possible through a special meter which records the amount. A recording meter for a similar purpose is shown in the top photograph above, so set that the lung capacity is taken against resistance. This, too, is valuable for detecting respiratory fatigue. Good lung capacity is important, especially for flying at high altitudes where the air has less oxygen. The other instruments shown on this page are explained above.



# ACROSS MONGOLIA BY MOTOR-CAR: OPENING UP THE GOBI PLATEAU.



WHERE SUPPLIES OF KEROSENE ARE KEPT: A MOTOR STATION ON THE GOBI PLATEAU THE USUAL MONGOL TENT OF WOOD AND FELT.



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ON THE RIVER TOLA NEAR URGU, THE MONGOLIAN CAPITAL: DRAWING WATER IN THE EVENING



A CITY POSSESSING A WELL-ORGANISED AUTONOMOUS GOVERNMENT, UNDER CHINESE SUZERAINITY: URGU—THE MAIN STREET.



WHERE CORPSES ARE THROWN OUT UNBURIED, TO BE DEVoured BY DOGS: THE CEMETERY AT URGU, WITH SKULLS AND BONES.



WITH ADVERTISEMENTS OF BRITISH CIGARETTES PAINTED ON THE WALLS: INSIDE THE CITY GATE AT KALGAN, IN CHINA.



WHERE CARS HAVE TO BE PULLED BY PONIES: THE ASCENT UP TO THE GOBI PLATEAU FROM KALGAN



A RISE OF NEARLY 3000 FT. IN 7 MILES: THE STEEP AND STONY ASCENT TO THE GOBI PLATEAU—PONIES PULLING CARS.

Motor-cars now run regularly from Kalgan (125 miles by rail from Peking) across the Mongolian Plateau. The road, which is 680 miles from Kalgan to Urga, after a very steep and rough ascent of some 2000 feet or more in seven miles, stretches across vast undulating pasture land. The surface is excellent: the track is well marked by countless caravans, and supplied with wells at regular distances. The portion of Gobi which can be properly called desert is very much smaller than appears on the map. The country

is covered with cattle, sheep and goats, as well as antelopes, and other game; while to the north minerals of all kinds abound. The Mongols are a simple pastoral people, very friendly to foreigners, and anxious for the opening up of their land. They delight in trying to race the motor-cars on their swift ponies. The capital, Urga, is picturesquely situated on the River Tola, surrounded by hills. The highest is a holy mountain. The city is divided into sections, inhabited by Chinese, Russians, Mongols, and Tibetan Lamas



## "LUCK"— OR EFFICIENCY?

By ANTHONY SOMERS.

SEVERAL well-known people have been writing on the subject of "Luck" in the columns of the *Weekly Dispatch*.

"I have never met a man who has succeeded in any department in life who owes his success to luck," says Mr. Leonard J. Martin, the business man who rose to fame in a single day by his startling purchase of £4,000,000 worth of linen.

Lord Leverhulme's experience has been precisely the same. "Luck!" he exclaims. "I often think that the word was coined by a man who spent most of his time watching other people 'get on.'"

### THE MAN WHO "MAKES GOOD."

"To my mind," he adds, "'luck' simply means being in the right place at the right moment, or taking advantage of presented opportunities. . . . The man who makes good is not the man who is for ever considering if he is going to be lucky. He is the man whose whole thoughts and interest are concentrated upon his work. He collects in his mind as many facts as possible concerning his work. He works upon the facts with his imagination, and his mind is ever susceptible to external influences, and those external influences provide the opportunities about which we hear so much."

And again: "The main thing, in my opinion, is to be prepared; always sleeping, as it were, with one eye open for opportunity. She knocks at the door of everyone, but she never knocks in the panel, and if we are half-asleep we may not hear the gentle tap." "I suppose when we do take advantage of opportunity . . . it may have meant a lifelong training qualifying for the psychological moment."

### THE VALUE OF DIRECTED THOUGHT.

These statements are confirmed by thousands of letters received by the Pelman Institute from men and women of every profession, business, and occupation in life. These writers explain, very often in considerable detail, how for various reasons they had formerly been "kept back" in life; how others had passed them by in the race; how they had never managed to make the most of themselves, and had failed to achieve their ambitions. And then one day they had decided to take up Pelmanism, either on the advice of friends or as the result of reading one of

the Pelman announcements. They had gone through the Course—which is a definite system of instruction directed through the post by expert instructors, and not merely a set of text-books—and learnt the value of directed thought and how it leads to effective action. And after thus training their minds on scientific lines they had never once looked back, had gained promotion to higher positions, had increased their incomes, and had acquired an all-round mental efficiency which enabled them to do everything they had to do quickly and well.

### OPPORTUNITIES FOR EVERYONE.

As Lord Leverhulme says, Opportunity comes to everyone, and the important thing is to know how to take advantage of it when it comes. "Concentration" is necessary, and so is the quality of creative "imagination"; one's mind must be receptive to ideas and open to "external" influences—influences, that is, of the right kind—and one must be always "prepared." Pelmanism gives just that mental training that is so necessary in order to be "prepared" for the opportunity, and it gives, too, that power of instant decision which enables one to seize the opportunity before it passes by to tap at another's door. And as you go through the Course, so those weaknesses and failings which handicap the progress of so many—such weaknesses, for example, as Indecision, Forgetfulness, Want of Observation, Lack of Will-Power, Want of Self-Confidence, Mind-Wandering, Brain-Fatigue, etc.—are eliminated, and in their place you develop such qualities as—

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OBSERVATION,  
PERCEPTION,  
ENERGY,  
WILL POWER,  
DECISION,  
FORESIGHT,  
JUDGMENT,  
INITIATIVE,  
ORIGINALITY,  
IMAGINATION,

RESOURCEFULNESS,  
SELF-CONFIDENCE,  
TACT,  
ORGANISING POWER,  
SALESMANSHIP,  
DIRECTIVE ABILITY,  
AMBITION,  
DEBATING POWER,  
CONVERSATIONAL ABILITY,  
and  
AN ACCURATE MEMORY,

which are of the greatest value to every man or woman, whatever his or her particular position in life may be.

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Thus the Head of an important Factory, after taking a Course of Pelmanism, writes:

In 7 days I got about 15 new ideas for increasing my business, and also invented several articles, including an automatic machine. I feel I owe you a great debt.

And this from a Clerk is interesting:

Since I completed the Course my memory and powers of Concentration have considerably improved, and I am now occupying a very important position entirely owing to the beneficial results of the Pelman Course. As a practical mental stimulant Pelmanism has no equal.

And thousands of similar letters could be quoted did space permit, some of them recording income-increases of 100, 200, and 300 per cent., as the result of taking the Course.

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Pelmanism is not difficult to follow. You will find it most fascinating. It takes up very little time, and its cost is small and will be repaid you over and over again in your increased efficiency and in the material betterment that this will bring you. Fill up the following coupon and post it (or a postcard) to-day to the Pelman Institute, 53, Pelman House, Bloomsbury Street, London, W.C.1, and by return you will receive, free of cost, a copy of "Mind and Memory," which will tell you all about Pelmanism, and contains a Synopsis of the Course, together with particulars enabling you to enrol for the complete Course on special terms. Don't delay. Don't miss this opportunity. Write now or call to-day.

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## UNDER THE HAMMER: LORD MILFORD HAVEN'S BRITISH NAVAL MEDALS.



1. BOMBARDMENT OF ALGIERS, 1816.

2. ADMIRAL EARL HOWE, BATTLE OF FIRST OF JUNE, 1794.

3. ADMIRAL VISCOUNT NELSON.

4. ADMIRAL VISCOUNT NELSON, BATTLE OF TRAFALGAR, 1805.

5. BRITISH VICTORIES, 1794.

6. DEFENCE OF GIBRALTAR, 1779-1783.

7. THE VOYAGE OF SIR FRANCIS DRAKE, 1580.—DRAKE'S "SILVER MAP."

8. ATTACK ON CARTHAGENA, 1741.

9. VICTORY OF LA HOGUE, 1692.

10. VICTORY OF LA HOGUE, 1692.

The very interesting collection of British naval medals formed by Admiral the Marquess of Milford Haven (formerly Prince Louis of Battenberg), was sold by auction by Messrs. Sotheby, Wilkinson and Hodge, on July 24 and 25 last. The 199 lots reached a total of £1419 2s. The Drake medal fetched £235. This was described in the catalogue as follows: "The Voyage of Sir Francis Drake, 1580. . . . A thin, circular plate, engraved, the Eastern

Hemisphere shown on one side, the Western on the other. . . . A most interesting contemporary record of Sir Francis Drake's famous voyage round the world." Four other specimens, in all respects identical with this one, are known. They were probably given away by Drake as presents. Two are at the British Museum; one in the family of the late Sir John Evans; and one at the family seat in Devonshire, Nutwell Court.





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## LADIES' NEWS.

MUCH water has flowed under London Bridge since the Marquess of Cambridge, then Prince Adolphus of Teck, went to Queen Victoria to gain consent for his marriage with Lady Margaret Grosvenor, who was the daughter of her Majesty's 'trustworthy' and well-beloved cousin 'an English Duke. That consent was, as we know, given, and the bride was permitted to use the title of Princess. Once before Queen Victoria had given consent to Prince Edward of Saxe-Weimar to marry the daughter of an English Duke; and her Majesty's own daughter married the son of a Scotch Duke. Queen Victoria also consented to the marriage of her grand-daughter with a Scottish Earl, and on his wedding day created him a Duke. Now the Marquess of Cambridge's younger



WIFE OF THE GOVERNOR-GENERAL OF NEW ZEALAND: THE COUNTESS OF LIVERPOOL.

The Countess of Liverpool is the wife of the second Earl, whose term of office as Governor-General of New Zealand expired on June 1, 1920. Lady Liverpool was the Hon. Annette Louise Monck, G.P.O. 1919, who was married to the late Earl in 1891. She is a Lady of Grace of the Order of St. Elizabeth, Jerusalem in England.

daughter, Lady Helena Cambridge, is allowed by the King to marry an English gentleman, a title second to none one which the King himself recognises with pride. Major Evelyn Gibbs belongs to an old West of England family. His eldest brother, Mr. George Gibbs of Tyntesfield, is M.P. for Bristol, and his wife is the daughter of the Right Hon. Walter and Lady Doreen Long. Major Gibbs served in South Africa and in the European War, and is a big-game hunter and a favourite with all who know him.

His youngest brother is, like himself, in the Coldstream Guards. Lord and Lady Cambridge wish for a quiet, ordinary wedding for their daughter. The King and Queen will, however, be present, the bride being her Majesty's niece; so it cannot be that. The Marquess and Marchioness were married in the private chapel at Eaton Hall. King Edward, then Prince of Wales, was present; and King George and Queen Mary, then Duke and Duchess of York, were also there.

Hey for the holidays! They will be more enjoyed than ever before, because they have been well and duly earned. Not alone by dancing, matinee giving and going, entertaining and being entertained, but by good work well done. It was a happy assemblage that the King and Queen called round them in the grounds of Buckingham Palace last week, holiday-makers every one of them by excellent work done from patriotic motive. They have a right to their enjoyment that they never had before. Few, if any, of them will care to go back to lives all holiday. Meanwhile, the season is over, the war is over, and a time of change and rest in the immediate future. Everyone is just off somewhere. A thing to be borne in mind is that shortage of labour is pleaded still as excuse for all sorts of shortcomings, and a friendly tip is to take two bottles of Meltonian cream or two tins—one for black shoes and one for brown. There is nothing like attending to one's own footwear, now nearly as precious as jewels. The things done to them in hotels and in private houses are almost past belief. With a Meltonian outfit their present appearance and their future well-being are secured. No. 7, Garrick Street, W.C.2, is the place to get it; then one is quite sure it is really E. Brown and Sons' own make.

One hopes that not many people will fall into the river on Monday. There will be such keen anxiety to see the Sea Services' Pageant, led by the King's Barge, in which his Majesty, the Queen, Princess Mary, and one or two of the Princes will be rowed by the King's Bargemen in their quaint liveries. Decorated boats conveying representatives of our glorious and triumphant Sea Services will follow. The sight will be wonderful, because the occasion is great, and the manner of it unusual in our day, when such stately traffic on the river has not before been seen. Next day our Heir-Apparent leaves for Canada; and

his parents, sister, and brothers will feel the parting, for ours is a very united Royal Family, and the Prince has been so much away. The visit to Canada is to last only three months; it will be full of pleasure and fine sights for our Prince, and will pass quickly to him. The King and Queen and the people will think it long, and will be delighted to welcome him home again. A. E. L.



AN INTERESTING WEDDING: THE BRIDE AND BRIDEGROOM.

On July 21, at St. George's, Hanover Square, the marriage took place of Captain L. C. Gamage, M.C., and Miss Muriel Hirst, daughter of Mr. Hugo Hirst, Chairman of the General Electric Company. After the ceremony a largely attended reception was held at Claridge's. The bride, who was given away by her father, looked charming in white satin and old lace, and her veil of lace fell from a band of silver. Her bridesmaid was Miss Irene Hirst, her sister.—Photograph by Lafayette.]



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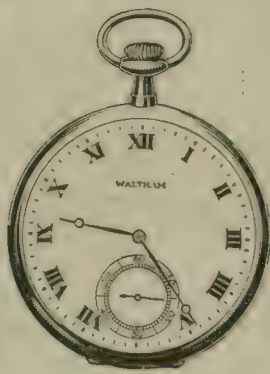
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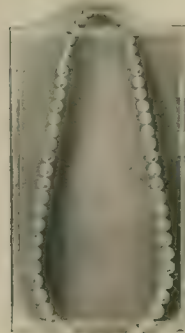


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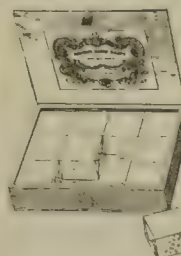
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## SCIENCE JOTTINGS.

THE ORIGIN OF THE RACE-HORSE.

THAT there should be any misapprehension to-day as to the origin of our race-horses is certainly curious. Yet such is the case. This much is shown by the statement which has often been made, and commonly passes unchallenged, that the term "thoroughbred"—usually employed to designate the race-horse in this country—should be restricted to the descendants of the celebrated horses Herod, Eclipse, and Matchem.

Before proceeding to demonstrate the fallacy of this dictum, it is necessary to comment on the origin of the word "thoroughbred." Briefly, it would appear to have been introduced during the first decade of the eighteenth century, but it was not till some years later that it came into general use. Even Youatt, in his book on the horse, published in 1831, found it necessary to speak of the "thoroughbred" or "turf-horse," and it did not find a place in the English Dictionary till 1836. The French term, "Anglo-Arab," for our race-horses, is far more suitable, since it carries with it the key to the origin of the breed. For it came into being when Arab horses were imported into England for the purpose of improving the breed of our native coursers, during the reign of the Stuarts, who, whatever their short-comings may have been, did much to encourage horse-breeding and racing.

To James I. we owe the race-course at Newmarket. The public races in his day were chiefly contested by a purely native breed, including hobbies, preserving the native distinctions of form and head. In fleetness they were unsurpassed by the very best Arabs. Noted performers were Whitefoot, Frankin, Peppermint, and Grey Dallavell. These are the first English race-horses of which individual mention is made.

Of the Eastern sires imported during the reign of James I. only one, the Markham Arabian, has come down to us by name, and he seems



THE VICTORY CELEBRATIONS: DECORATIONS OF A FAMOUS HOUSE.

Our photograph shows the elaborate and appropriate decoration scheme which adorned the front of the establishment of Messrs. Waring and Gillow in Oxford Street on Peace Day.

to have been a by no means remarkable horse. Charles I., in the matter of racing, followed in his father's footsteps.

Many Eastern horses were imported during his reign, the most famous of which is the horse known first as the Buckingham Turk, from the fact that he was imported by the Duke of Buckingham. He was later sold to Mr. Helmsley, and henceforth was known as the Helmsley Turk. He is the first Eastern horse known to have made his mark at the stud. His blood has been chiefly transmitted to our time through Old Merlin, Blunderbuss, the Bolton Sweepstake and the Blacklegs mare, the last-named being the dam of Marske, the sire of Eclipse, foaled in 1764. But it has become the practice to speak of Eclipse as the descendant of the Darley Arabian, who was not imported till 1706. Matchem, foaled in 1748, is a descendant of the Godolphin Barb, imported in 1724; while Herod, foaled in 1758, is a descendant of the Beyerly Turk, imported circa 1689.

It was not for speed, but for his extraordinary staying power and soundness of constitution, that the Arab was, and is valued. And it was these qualities which were grafted upon our native stock by these importations.

To Charles II. we owe the importation of a considerable number of Eastern mares, known subsequently as "Royal mares," and from this time onwards mares not of Arab blood ceased to be used at the stud. Up to this time these imported Arab sires had

been commonly mated with native English mares, and, furthermore, it is to be noted not all the sires of the early days of racing were of Arab blood. Thus, then, the justification for the term "Anglo-Arab" for the thoroughbred of to-day. That the thoroughbred of to-day is in no sense an "Arab" horse is shown by his relatively great size. For the original imported Arab horses would to-day be regarded as ponies, standing as they did no more than 14 hands, as against 15 hands 3 inches to 16 hands to-day.

With the increase in height there has also been introduced a greater uniformity of colour, the modern racehorse being commonly bay or brown. Not so the earlier horses. W. P. PYCRAFT.



THE VICTORY MARCH: IN THE NAVY SECTION.

Our photograph shows a group of officers and men, under the command of Capt. G. S. Gillard, R.D., R.N.R., representing the Royal Mail Steam Packet Company's Sea Staff, who took part in the Victory March through London on July 19.



# URODONAL

is the KING of scientific remedies for such uric acid disorders as RHEUMATISM, SCIATICA, ARTHRITIS, and KIDNEY TROUBLE of various kinds. The reason it REIGNS SUPREME over other so-called remedies is that it is the most powerful solvent of uric acid known to Medical Science, being 37 times more effective than Lithia.

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URODONAL is unrivalled in its power of ridding the body of irritant deposits. This it effects, first, by dissolving the highly insoluble waste tissue products of the uric acid group, and, secondly, by stimulating excretion via the kidneys.

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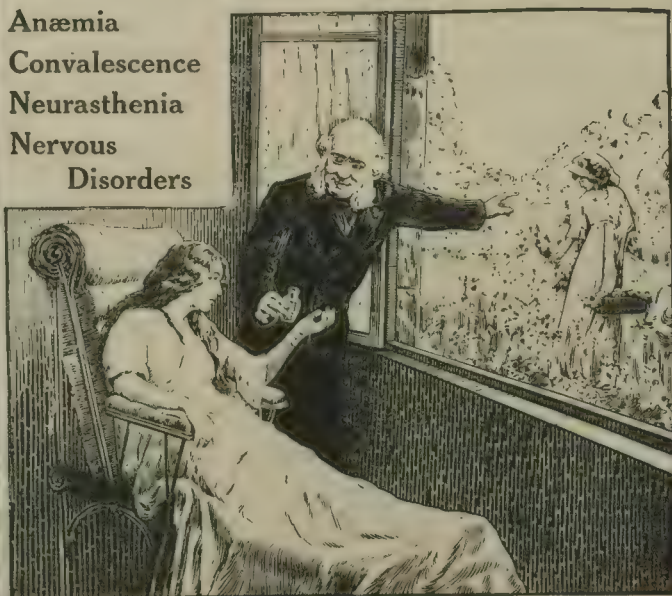
Prepared at Chatelain's Laboratories, Paris. Obtainable from all Chemists and Stores, or direct post free, 5/- and 12/-, from the British Agents, HEPPELS, Chemists, 164, Piccadilly, London, W.1.

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## PEACE.

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## WAR

and is now doing a great work for the men still on service abroad, men on leave in London, disabled and other discharged men, sailors' and soldiers' motherless children, etc.

A Gift to the Church Army is AN ACT OF GRATITUDE TO THE MEN WHO HAVE HAZARDED ALL and given much for the Peace and Safety of the world.

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## THE CHRONICLE OF THE CAR.

## Prices and Deliveries.

There must be thousands of would-be owners who have placed their orders and paid deposits for new cars, delivery of which was promised many weeks ago, but who are still waiting and hoping against hope that



HELPING THE VICTORY LOAN: LANCHESTER ARMOURD CARS.

Lanchester cars of the Lanchester Squadrons, which did such fine work in the war under the charge of Commander Locker-Lampson, C.M.G., D.S.O., M.P., are here seen in Victoria Street, Birmingham. The cars have a splendid record. On one occasion they held up 20,000 Austrians for 21 hours, and checked the march of the Germans in the Dobruja.

they will get their vehicles before the season ends. The general idea is that manufacturers are taking it easy in the task of getting back to the normal ways of peace, and that they, having made plenty of money during the war, do not care particularly how long their customers have to wait for their cars. Those who are intimately in touch with the industry itself know that it is not altogether, or even mainly, the manufacturer that is to blame. It is true that there are one or two, or even possibly half-a-dozen, of the less enterprising firms who are afflicted thus; but by far the great majority are only too anxious to get properly going and to keep faith with their clients. What, then, is the reason for delay, coupled with a steady rise in price of the finished car? A correspondent of the

*Autocar* sheds a lurid light on some of the reasons for this unhappy combination of circumstances. He says, "I confess the magnitude of the difficulty is news to me, though I had known of its existence—that the delay is to be mainly attributed to the production of bad castings, which is retarding the building of engines. Millions of pounds' worth of cars," he alleges, are held up in a partly finished state for want of engines. One firm is getting less than twenty per cent. of good castings, while another is scrapping sixty per cent. of the castings received. Out of a batch of sixteen castings, one firm got but a single engine; and out of another batch of twenty-two castings, which should have yielded about twenty cylinders, not one was usable. What is the cause? It surely cannot be the quality of the basic metals, which cannot be greatly different from that subsisting before the war, though this has yet to be determined. In trade circles the disposition, says the *Autocar*, is to lay most of the blame on the workers, whose lack of zeal and enthusiasm is undoubtedly causing great anxiety.

Obviously, this bad work, leading to the scrapping of so much valuable material, means that the cost of producing the finished article goes up by leaps and bounds. It is equally clear that the manufacturer cannot be expected to shoulder the loss. He must make a profit or get out of business. Therefore, the purchasing public must pay, and so it is we hear almost every week that this firm and that has been compelled to add £100 or so to the calculated cost of its car. It seems to me the position is too serious even to comment upon.

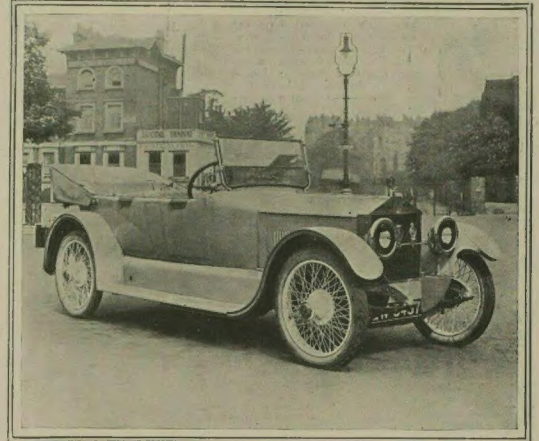
## The War Motors Association.

A few weeks ago I mentioned in these columns that a body had been formed under the above name for the purpose of providing discharged and demobilised officers and men of the Forces with motor vehicles at reasonable prices, to enable them better to conduct their business affairs. The source of supply was to be from the surplus motor-cars and cycles which are being sold in enormous numbers out of the Government service. I understand that the Association has

found itself very much hampered in its task by the impossible attitude of the Disposal Board, which appears to take the line that the last persons to be considered in the matter are those who have fought for their country. Although hundreds of vehicles and cycles are being disposed of through the periodic auction sales being held all over the country, and though there are thousands more to be sold, the Association, I am informed, has ceased to record applications. It is not as though there was any particular favour in allotting vehicles to those who apply through the Association for the right to purchase, since the prices at which cars and cycles have been sold through that body compare favourably with these realised at the auctions.

## Roads and Transport.

Whatever form the Ways and Communications Bill may assume as the result of the debates in the House of Lords, it is hoped that, if roads remain in the Transport Ministry, the new Roads Committee accepted by the



A NEWCOMER FROM AMERICA: A ROAMER CAR.

Our photograph shows one of the six-cylinder "Roamer" cars, a handsome and very up-to-date car, which is to be sold in this country at rather less than a thousand pounds.

Government after the Downing Street Conference will become a much more independent and authoritative body than the Bill at present makes it. Amongst the suggested amendments circulated by the Motor Legislation Committee

(Continued over col.)

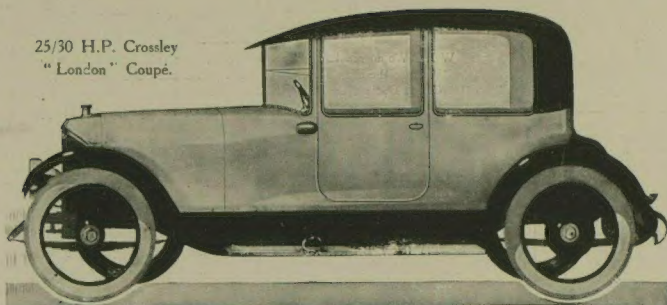
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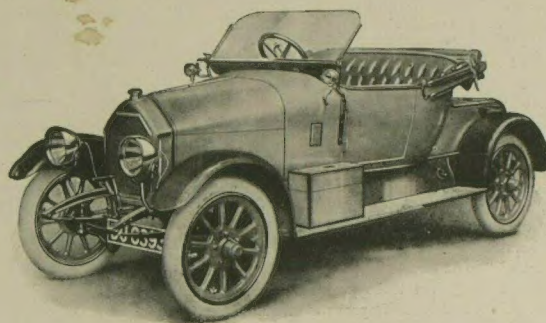
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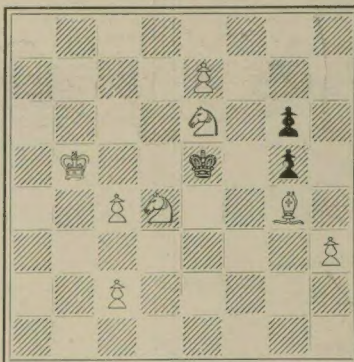
to achieve that purpose are the following: The classification of roads, which Sir Eric Geddes has described as the first step towards a national roads policy, should be undertaken in accordance with the recommendations of the Roads Committee. A similar course should be pursued with regard to the appropriation of grants from the Road Improvement Fund, which was originally ear-marked for road improvement purposes, but was temporarily diverted as a war emergency measure. As the Roads Committee will in effect take the place of the Road Board, the duty which was placed upon the latter of making an annual report to Parliament should be transferred to its successor. The desirability of placing the classification of roads and the appropriation of grants-in-aid in the hands of an impartial authority has been emphasised by the Departmental Committee on Local Taxation and many other bodies which have investigated these problems. In introducing the Development and Road Improvement Funds Act, 1909, Mr. Lloyd George referred to the extreme importance of securing an absolutely impartial body, free from political bias, and possessing complete public confidence, to administer the Road Improvement Fund. Further, the Roads Committee should appoint its own Chairman and Secretary. It should also be given authority to advise upon the question of ferries, the powers of existing Government Departments in relation to which are transferred to the new Ministry under the provisions of the Bill.—W. W.

## CHESS.

To CORRESPONDENTS.—Communications for this department should be addressed to the Chess Editor, Milford Lane, Strand, W.C.

PROBLEM No. 3816.—By W. FINLAYSON.

BLACK.



WHITE.

White to play, and mate in three moves.

SOLUTION OF PROBLEM No. 3814.—By A. M. SPARKE.

WHITE

1. Q to Kt 6th

2. Mates accordingly.

BLACK

Any move

W R.—We do not know of a chess club in the neighbourhood you mention. Write to the Hon. Secretary of the City of London Chess Club, 2, Wardrobe Court, Doctors Commons, E.C.4.

ERNEST ROBINS (Bexhill-on-Sea).—Problem quite sound, and will appear in due course.

C N WARREN (Epsom).—We acknowledge receipt of your batch of problems, which shall be examined as soon as possible.

J HERBERT FENTON (Manchester).—Thanks for your problem, but it is too easy for our use.

CORRECT SOLUTIONS OF PROBLEMS Nos. 3809 and 3810 received from Keshab D Dē (Calcutta); of No. 3814 from John Isaacson (Liverpool), R. J. Lonsdale (New Brighton), Enro, Albert Taylor (Attercliffe), and R C Durell (South Woodford).

CORRECT SOLUTIONS OF PROBLEM No. 3815 received from A M Sparke (Lincoln), A H H (Bath), C Nabokoff, J Fowler, R C Durell (South Woodford), J S Forbes (Brighton), J Dixon, and Albert Taylor (Attercliffe).

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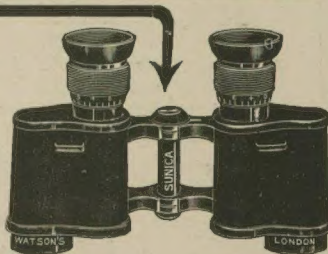
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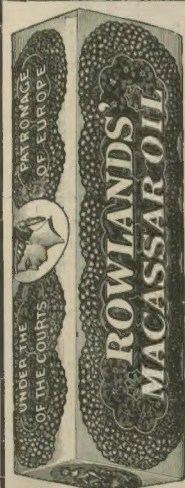
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